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The Environment on Stage: Scenery or Shapeshifter?

by

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Behind this thesis lies an ecosystem of expertise in theatre, ecocriticism and other contiguous areas of knowledge. Appropriately, one of the pivotal ecosystem nodes in this thesis is a theatre company. Working with the HandleBards on audience feedback demonstrated the admirable qualities of the troupe as theatre professionals, spokespeople for the environment, and repositories of limitless human energy. Professor Baz Kershaw's Meadow Meanders on campus turned out to be an unexpected source of inspiration. Appreciation is also due to people I got to know during the IFTR World Congress at Warwick University. I enjoyed the opportunity of participating actively, in 2014 and the years that followed, in the exciting melting pot of ideas at work in the Theatrical Events Working Group, along with Vicki Ann Cremona, Peter Eversmann, Annelie Saro, Willmar Sauter, Henri Schoenmakers, Bess Rowan and others. I also spent formative hours in a summer 2015 workshop relating to *Famine and Dearth in India and Britain, 1550-1800* (a joint venture of Exeter University and Jadavpur University Calcutta), led by Dr Ayesha Mukherjee. This was a chance first encounter with the Humanities Text Encoding Initiative known as TEI, further explored with Warwick's Digital Humanities Academic Technologies team. I did not use TEI directly, but it inspired some of the methodology applied in this thesis.

I would also like to acknowledge the ecosystem of feedback loops that led to this thesis. Here, thanks are owing to Professors Tony Howard and Rutter for perhaps inadvertently steering me towards the road that led to theatre ecocriticism. I thought I was changing gears from my day job in sustainability (thank you to UBS for accommodating the part-time working to make this possible) to immerse myself in literature and theatre. I had also imagined climate change to be too big and too complicated for the stage, yet found myself writing about the UK climate change plays during my Warwick Masters. Two important things followed: I took my paper

to an ASLE conference, where ecocritic Richard Kerridge kindly suggested I had found a potentially rewarding avenue to explore. Next, writing up my paper on three of the climate change plays for the *New Theatre Quarterly (NTQ)* I was fortunate enough to receive helpful feedback from Professor Kirsten Shepherd-Barr. She, in turn, had been fortuitously introduced to me by Professor Sally Shuttleworth (Professorial Fellow in English at my alma mater, St Anne's College, Oxford) in the context of a Humanities and Environment seminar series run at the Smith School of Enterprise and Environment. Both supported the *TORCH-Smith School Mind the Environmental Gap Symposium* that followed in October 2013. Many others, in the context of the seminars and symposium (perhaps most memorably Steve Waters directing a scene of his play *The Contingency Plan* with OUDS students, and Chris Garrard talking about the connections between musical formations and glaciers), added to the overall melting pot of ideas. Last but not least, I'd like to thank my mother, for cheering me on all the way.

Abstract

This thesis is about the environment on stage in production and reception, in several guises. Ecocritical theatre speaks for the environment. Theatre ecologies denote the system of feedback loops running through theatrical events. Theatre ecocriticism describes an ecoaware spectatorial lens. The main theoretical innovation is the conception of the theatrical event as a living ecosystem in a literal sense. The vibrant chemistry between production and reception, and the spiralling ideas and emotions this generates in some conditions, are unavoidably driven by flows of matter and energy, thus, by the natural environment, even when human perspectives seem to dominate. Acceptance of this perspective requires a mind-set I describe as ‘ecoanthropocentric’, and theatre that succeeds in inculcating this perspective is ‘ecoeffective’. Both terms contain the idea that nature is culture and culture is nature, running through the work of Gregory Bateson and others. Methodologies applied in the empirical work are shaped in the same spirit: circularity, ambiguity, oscillating feedback loops and runaway warming systems are necessarily characteristic of effective ecotheatre.

My thesis question was prompted by suggestions that the environment is occluded on stage, an idea at odds with evidence of an active presence. Archival material suggests that coherent productions of *Coriolanus* put dearth (thus, the environment) on stage. *Waiting for Godot* is regularly staged as a response to environmental disasters. The campaigning group BP or Not BP speaks out for the environment through stage invasions. The bicycle reveals the environmental shapeshifter at the core of a cycling theatre company's productions. Critics reviewing a climate-change play in 2015 were more engaged in the play's ecological dimensions than their 1994 counterparts. Overall, the environment on stage is found to be at its most effective when consistently embedded, in the lived experience of production and reception, as an open secret.

Declaration

I declare that this thesis is all my own work, except for the survey form developed for the HandleBards case study in Chapter Six. The survey form was jointly developed with the theatre company, so that it would be useful for the company's market research, as well as the research discussed in this thesis. Paul Moss, one of the founders of the HandleBards, subsequently set up an electronic version of the form using public domain software to expand the collection of data while reducing the need to carry heavy batches of paper forms by bicycle. In 2011, I submitted an essay entitled 'Climate Science in Three Climate Change Plays of 2011:

Documentary, Agitprop or Art?' as part of my Warwick MA degree. I subsequently developed some of this material for a published article in *NTQ*. I further discuss the UK climate change plays in this thesis, but not in the same way. I did not draw directly on these earlier materials, other than to refer to them where footnoted. This thesis has not been submitted for a degree at another university.

Introduction. The Environment on Stage in Production and Reception

Lived Ecotheatrical Experience Vs. A Story of Ecological Occlusion

An ancient damaged shrieking shape spewed out an unstoppable stream of corrupted, toxic, intermittently comprehensible verbal bile. Like a dirty river throwing out indigestible dead matter, this verbal deluge harboured tainted gobbets of human experience – torture, dismemberment and murder – sugared but undisguised by the rhythms and rhymes of old folk tales. Such effects were intensified in 2015 by Maxine Peake’s delivery in the lead role in Caryl Churchill’s play *The Skriker*. She was by turns wheedling, needling, harrying, mocking, sarcastic and liltingly conversational in a quasi-operatic feat of vocal control. In the immersive version of this experience furnished to those with so-called stalls seats it was impossible to know whether to try to stare down the Skriker’s unsettlingly close-up glare or look away. Little houses and sunflower gardens hovered improbably in the peripheral vision as the Skriker leapt unnervingly from one long planked banquet table to another, crashing down on gigantic trainer-shod feet right in front of the spectators at the feast. Above, the shadowy outline of many heads betrayed the presence of invisible eyes gazing down from several more circles of hell hovering in the hazy gloom. The only way out from the underworld was a dark subterranean passageway requiring negotiation by torchlight. It was hard to believe we were sitting in the Manchester Royal Exchange Theatre.¹

The Skriker is an environmental polemic but, when this play first came to the stage in 1994, with an astounding (1994 Olivier Best Actress Award-winning) performance by lead actor Kathryn Hunter,² Churchill herself thought no one had noticed the ecotheatrical dimension of the production. At first sight this is unsurprising, notwithstanding signposts to environmental wreckage in key speeches such as this:

Have you noticed the large number of meteorological phenomena lately?
Earthquakes. Volcanoes. Drought. Apocalyptic meteorological phenomena.
The increase of sickness. It was always possible to think whatever your

¹ Director – Sarah Frankcom; choreography – Imogen Knight; design – Lizzie Clachan; music – Nico Muhly and Antony (Antony and the Johnsons); illusions – Chris Fisher.

² Director – Les Waters; choreography – Ian Spink; design – Annie Smart; music – Judith Weir.

problem there's always nature. [...] But it's not available any more. Sorry. Nobody loves me and the sun's going to kills me.³

However, the dominant plot line describes a collision between human and fairy worlds. The former is represented by Lily, who is pregnant as the play begins, and Josie, who is incarcerated in a mental hospital at the play's opening, and the latter by the Skriker ('a shapeshifter and death portent, ancient and damaged') and her entourage. The spirit world is constantly present but mostly invisible to humans, and humans are born to find themselves in constant danger of terrible fates. The plot runs through matricide (Josie had killed her baby before the play began), horrific provenance trials by fire (when Josie wants Lily to make sure her baby is not a changeling by means of a hot shovel), and abandonment, as Lily leaves her daughter behind having given herself up to the Skriker's underworld. A century on, and in the 'same second', the Skriker's revenge is complete when Lily's neglected, damaged 'child's child's child's' bellows at her in rage.

I have chosen this important 2015 production of this play to open my thesis because it is a good entry-point to some of the ideas and theories I draw on throughout, some of which I briefly sketch out in the following paragraphs of my Introduction. It also underscores a key thesis goal – to put the emphasis on live performance rather than textual analysis. *The Skriker* is far more than a fairy-tale, strikingly told. Rather, from the ecocritical perspective I took into the auditorium with me, it came across as a phenomenological experience of ecological rupture, ecopoetically performed. The immersive encounter described above magnified the small signs of a damaging fissure between humans and nature that are embedded in the Skriker's language: 'Now they hate us and hurt hurtle faster and master. They poison me in my rivers of blood poisoning makes my arm swelter'.⁴ From my perspective as a spectator, this theatrical event turned out to be a reperformance of what this thesis will call the nature/culture divide. The rift between human beings and the ecosystem in which they are embedded was symbolically delivered on several levels in this production – through the choreography, the two-part structure in the list of protagonists, the double helix of the verbal/non-verbal, human/non-human plot, the two-way division in the audience (those of us in the underworld and

³ Churchill, *The Skriker* (London: Nick Hern Books, 1994, repr. 2015), p. 48.

⁴ Ibid, p. 9, p. 56, p. 12.

the rest), and the human voice delivering fractured language. Transmission mechanisms for phenomenological effects in the ecologies of the play must (I thought, for some) include unconscious connections to the deeply embedded childhood imaginary through nursery rhyme and folk tale. However, for me what really dominated in terms of the production's visceral emotional effects was the embodiment of catastrophic wreckage in the Skriker and her constantly moving choric entourage of semi-human forms. In this ecotheatrical experience, the vibrancy of the performance delivered by the actors themselves was what mattered most with respect to the overall efficacy of the 2015 production I was lucky enough to see. Other co-creative shapeshifters intervened from the periphery – outside the theatre. For some spectators, this might have been their awareness of environmental campaigns in the public domain, as suggested by comments I overheard in the audience. For me, the leitmotif of intergenerational damage running through this 1994 play was (with the benefit of hindsight) a precursor of lines in *We Turned on the Light*, Churchill's 2006 operatic climate-change work with composer Orlando Gough: 'My grand-daugh-ter's grand-daugh-ter says to my ghost I hate you I hate you.'⁵ In 2015 such intertextuality magnified the final moments of the play, enhancing its efficacy as ecotheatre.

The catalyst for the driving question in this thesis – whether there is any evidence to suggest that live theatrical performances can help bring about a shift to a new environment-aware way of life – was my reaction, as a spectator, to several live theatrical events such as the one described above, in the context of a narrative of occlusion in theatre ecocriticism. Hence Una Chaudhuri's frequently-cited 1994 article:

From the polluted streams of Dr Stockman's town to Beckett's ash-cans and beyond, a largely negative ecological vision permeates the theater of this century. Pervasive though it is, the specifically ecological meaning – as opposed to the mere theatrical presence – of this imagery has remained occluded, unremarked, a fact that derives from the disastrous coincidence, in the second half of the 19th century, between the age of ecology and the birth of naturalism.⁶

⁵Gough, *We Turned on the Light. Vocal Score* (London: Boosey & Hawkes, 2006), p. 26.

⁶ Chaudhuri, "'There Must be a Lot of Fish in that Lake': Toward an Ecological Theater', *Theater*, 25:1 (1994), 23-31 (23).

For Chaudhuri, the environment as a living entity (as opposed to a ‘theatrical presence’) on stage is blocked, hidden, or indeed both. However, my experiences as a spectator suggested to me, in contrast, that specifically ecological meanings might quite often be there for anyone minded to see them, and it is unlikely that this was not also the case when Chaudhuri wrote her 1994 article. For Chaudhuri, the environment on stage is scenery, not shapeshifter, yet, in Churchill’s play, written in the same year, the reverse seems to apply. I cannot speak for the 1994 production as I was not present, but Chaudhuri’s perception is at odds with my 2015 spectatorial reaction to a striking performance of Churchill’s play, in which the environment was the shapeshifter, and the shapeshifter was the environment.

Ecotheatrical Efficacy and Ecotheatrical Events as Ecosystems

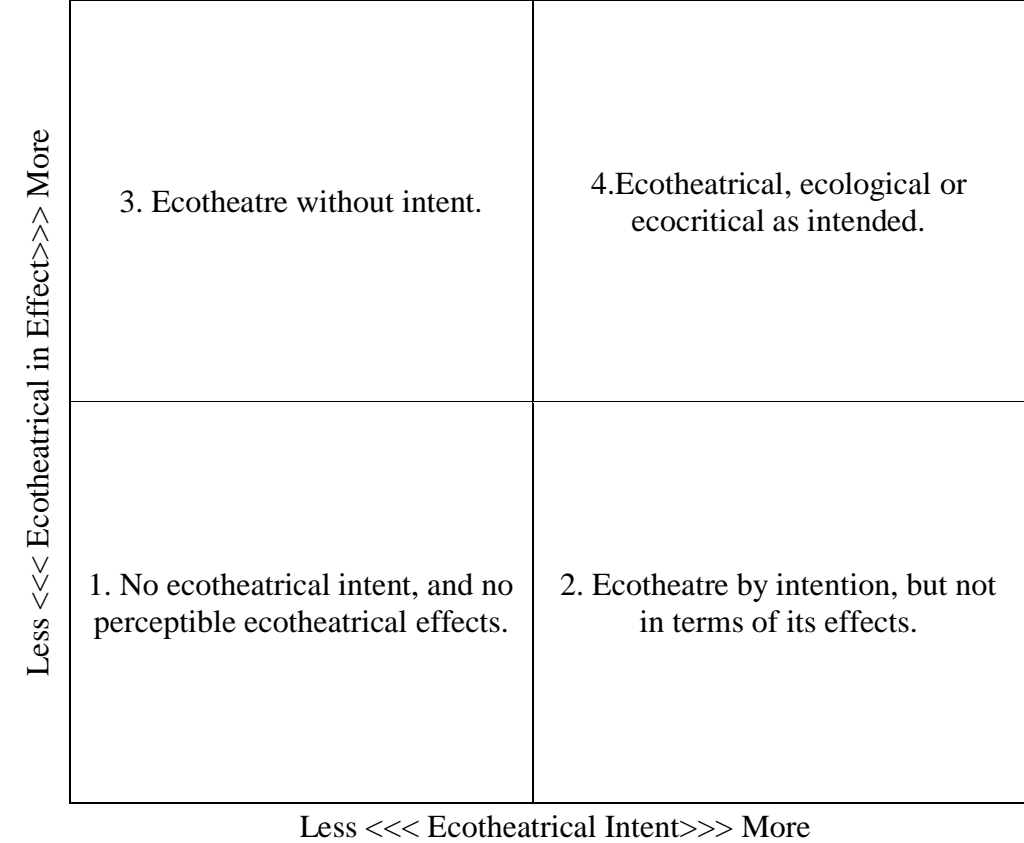
A key point about the immersive experience described above is the sense that live theatre has enormous power from an ecocritical perspective. It is itself a lived experience through which the essence of human relationships with the environment might potentially be perceived in a new light. For a phenomenological experience such as this to work spectatorial co-creativity is a given. The performance I describe above is a good example, as the joint production of the production team and my internal reactions, in which there was a process of decoding ‘ecological meanings’ at several levels. However, decoding is not everything. Without a series of transmission loops in the form of emotional reactions joining up intra-theatrical and extra-theatrical experiences, such meanings might not have come across as strongly as they did.⁷ A third important dimension of the experience is thus a sense of a theatrical event as a complex system of reactions working at many levels. If, as I argue throughout this thesis, live theatrical experiences can be described as ecosystems – complex structures composed of feedback loops running through the theatrical event as a whole – then the occlusion of ecological meanings Chaudhuri describes could turn out to be more complicated than it looks at first sight.

An important argument running through the thesis is that live theatrical experiences working as ecosystems must inevitably contain ecological meanings

⁷ See Bruce McConachie, *Engaging Audiences: A Cognitive Approach to Spectating at the Theatre* (New York: Palgrave Macmillan, 2008), on the importance of the emotions in driving responses to theatrical events, pp. 65-75 and 90-100.

somewhere in the system, whether they are there with intent, or not. Moreover, in ecologies and ecosystems in any context, outcomes are not always under the control of single entities or individuals, and this means that intentions and outcomes may be misaligned in unexpected ways. Ecological meanings might turn out to be present when they do not appear to be there at first sight; or they might appear to be absent or blocked when they are present but simply not noticed. Four simplified scenarios are depicted in Figure 0.01.⁸ Ecotheatrical productions might have the intended ecological, ecotheatrical or ecocritical effects, as in the 2015 example of *The Skriker*, which therefore falls into in Quadrant Four.

Figure 0.01: Potential Misalignments Between Intentions and Effects



Productions not conceived as ecotheatrical might nevertheless be ecotheatrically effective for some of those involved. Indeed, works such as *Waiting for Godot* produced in a conventional theatre space without the intention of overtly thematising the environment have the potential to fall into Quadrant Three, should any of those involved happen to bring an ecocritical perspective to any given performance. For

⁸ Unless other sources are mentioned, I am the author of figures and diagrams.

spectators who were content to enjoy the fairy stories in *The Skriker*, the 2015 production might have fallen into Quadrant Two, with an absence of ecotheatrical effects notwithstanding the way it is described above. Finally, theatre produced without ecological, ecotheatrical or ecocritical intentions might be received in the same way, but, even here, there is scope for the subversive environmental shapeshifter to turn the tables. The usefulness of an ecosystems-based perspective on theatre ecocriticism (which must perforce recognise the scope for unexpected alignments and misalignments) is that it might potentially help diagnose the occlusion problem Chaudhuri describes. This is because such an approach might help to tease out precisely where the environmental shapeshifter is encountering blockages in the ecological feedback loops shaping the overall theatrical event as an ecosystem.

Defining the Shapeshifter: Not an Entity but an Ecosystem

Embedded in the term ‘shapeshifter’ in my thesis title, which is borrowed from Churchill’s prescient climate change play *The Skriker*, are three ideas at the core of this thesis. One is the idea of the environment as an ‘actant’, defined as a source of action ‘that can be either human or non-human’ that ‘has efficacy’.⁹ At first sight this is a good description of the spirits in Churchill’s play, as well as potentially providing an ecocritical definition for the term ‘shapeshifter’. However, as the alignment problem in Figure 0.01 (p. 14) suggests, such a definition is incomplete in suggesting a one-way street between the actant and what it is acting upon. It also contains a divide between human and non-human actants, over-riding the possibility that all such entities, human and non-human alike, are driven by the same ecologies. Thus, the idea of the environment as an actant runs against the intended grain of this thesis, and arguably also against Churchill’s definition of shapeshifter, until it is conjoined with the next two assumptions.

The second core idea is the importance of spectators and audiences to ecotheatrical efficacy, on the basis that production teams and their spectators and audiences co-creatively shape theatrical meaning. Emotional, cognitive and physical reactions in audiences can be described as atmospheric, epistemological and

⁹ See Jane Bennett with reference to Bruno Latour. Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010), loc. 72. Latour, *Politics of Nature: How to Bring the Sciences into Democracy* (Cambridge MA: Harvard University Press, 2004).

ontological shapeshifters in the context of theatrical performances – the immersive experience described above would have been very different in the presence of the traditional fourth wall, for instance. Moreover, like Churchill's *Skriker*, audiences and spectators can, in effect, also change shape internally in themselves should the way they feel or think shift because of their reactions to what is on stage. Overall what really matters about the relationship between spectators and productions teams is that production is reception and reception is production.

The third core idea is that culture is nature and nature is culture. The implication of this proposition is that human behaviour is shaped by the ineffable fusion of tangible and intangible matter people inhabit and are inhabited by. Some theatrical productions (or the play texts that inform them) directly depict behaviour that can be nothing other than a synthesis of nature and culture. Three examples in plays later discussed in this thesis include the link between hunger and angry crowd behaviour in William Shakespeare's play *Coriolanus*; famine-induced cannibalism in *Pericles*; and damage inflicted on environmental and social ecologies in the parcelling out of land at the opening of *King Lear*. In all three plays, the shapeshifter (which connects to Bennett's 'vibrant matter', but so much more than that) shifts the shapeshifter.¹⁰ Even though *Coriolanus*, *Pericles* and *King Lear* are not the first texts in typical ecocritical reading lists, and would not be regarded by all concerned as ecotheatrical with intent, the environment as a shapeshifter of meanings is capable of being revealed to an ecocritical eye.

A point I want to stress at this stage is that the three key assumptions – the environment as shapeshifter/agent/actant, the co-creativity at work in production and reception, and the nature/culture fusion – are deeply entangled each with the other, an ecosystem of ideas in themselves. If any of these three assumptions should be weakened or dropped, the entire system of ideas that defines the term shapeshifter would become distorted. From this perspective, if the environment on stage is not an ecosystem knowingly embedded in the ecosystem it performs as an ecosystem within

¹⁰ E.g. *Coriolanus*, ed. by Peter Holland (London: Arden Shakespeare, an imprint of the Bloomsbury Group, 2103), I, i; *King Lear*, ed. By R. A. Foakes (London: Arden Shakespeare, an imprint of Cengage Learning, 1997), I, i; *Pericles, Prince of Tyre*, ed. by Suzanne Gossett (London: Arden Shakespeare, an imprint of Thomson Learning, 2004), I, iv, 39-46.

an ecosystem of other ecosystems, then it can reasonably be described as mere scenery, stranded in the deep gulf of the nature/culture divide.

If, however, the environment on stage is indeed such an ecosystem, spectators and production teams as other ecosystems themselves embedded in ecosystems of ecosystems – including the theatrical ecosystem – may well be incapable of perceiving the difference between nature as scenery and nature as shapeshifter. Moreover, such epistemological entanglement could potentially be described as the height of ecotheatrical efficacy, in some conditions. In this thesis, I may thus be embarking on an impossible task. However, one thing is clear. The idea of ecologies and ecosystems must shape the spectatorial lens through which I approach the idea of live theatre as a shapeshifter potentially capable of being effective, by making a difference in the context of the environmental crisis facing humanity.

A Rationale for Anthropocentrism, Better Described as Ecoanthropocentrism

There is abundant evidence, as further discussed in Chapter One, to suggest that humanity is facing an environmental crisis of existential proportions, because the resource-hungry culture shaping many aspects of human activity is unsustainable. Such evidence has prompted a series of environmental campaigns and initiatives over many years. Yet human society continues to over-exploit resources, steadily weakening the ecosystems on which life as we know it is dependent. The misalignment of ideas at work in human relationships with the environment can, once again, be explained diagrammatically.¹¹ In Quadrants One and Four, in Figure 0.02 (p. 18), environmental campaigns and ecoawareness in the broader context are aligned in a way that seems to be, respectively, harmful for the environment (Quadrant One), and constructive (Quadrant Four). Pro-environmental campaigns have the power to be highly effective in Quadrant Four – they are adding to pre-existing momentum as well as benefiting from it in terms of their immediate impact. Pro-environmental campaigns working against the prevailing grain of other

¹¹ Diagrams are used throughout this thesis to shape and explain some of the ideas. This is partly because of the nature of the concepts driving the thesis (such as ecosystems and ecologies). It is also a strategy applied in the field of qualitative research known as Grounded Theory. See Juliet Corbin and Anselm Strauss, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 4th edn. (Los Angeles: Sage, 2015), e.g. Chapter Six, Memos and Diagrams, pp. 106-132.

campaigns and at odds with the broader cultural context (thus, seeking to overturn conditions described in Quadrant One) are likely to be doomed to failure unless they are very powerful. Individually, as one or more feedback loops at work in the broader ecosystem, they are unlikely to be able to influence the shape of the whole. Quadrants Two and Three describe a misalignment of ideas regularly encountered in the context of the environmental crisis. On the one hand, there may be abundant evidence to suggest that specific ecologies are in danger and yet nothing is done. Environmental campaigns conducted in these conditions can potentially be described as ineffective. On the other hand, a problem of actual or potential ecological damage might be a live issue for people in a community, where attempts to speak for the environment might fail because an over-insistence on evidence as a condition for acting weakens the position of such speakers. Such misalignments may potentially constitute a gap theatre could step into with the potential to be ecotheatrically effective by producing a shift in thinking in the form of a more constructive configuration.

Figure 0.02: Alignments and Misalignments of Ecocampaigns and Ecoawareness

Less <<< Evidence of Environmental Degradation >>> More	3. MISALIGNMENT. Strong evidence of environmental degradation, ignored.	4. ALIGNMENT. Strong evidence of environmental degradation and a strong societal response.
	1. ALIGNMENT in an adverse direction for the environment. Environmental degradation ignored.	2. MISALIGNMENT. Societal awareness of environmental degradation, but no evidence available.

Less <<<Ecoawareness in the Broader Context>>> More

The persistence of the nature/culture divide is likely to mitigate against the possibility of closing such misalignments. Indeed, Chapter One moots the possibility that unchecked resource use in combination with population growth leading to a potential human extinction event may be an inevitable ecological trajectory, visible to human eyes in the form of the population cycles followed by many living species yet, because of the divide, not seen as applicable to humans.

Nevertheless, Chapter One also considers two less pessimistic possibilities. First, that human beings have the power to change the course of ecological feedback loops in constructive ways (from the perspective of the planet and their own survival on it) by changing their culture. Secondly, that live theatrical performance has the power to help push cultural change forward because it is grounded in the stuff of nature and also phenomenologically experienced by its audiences.¹² Thus live theatre is potentially well-equipped to cross the nature/culture divide, and the divide is positioned in this discussion and in that context as potentially occluding (in both possible senses of masking or blocking) the cultural change needed to change human relationships with the environment.

The importance of the nature/culture divide in the above, along with the inevitably socially-constructed idea of ecosystems and ecologies means that, in the wide range of possible ecocritical approaches, ranging from Dark Green to anthropocentric,¹³ this thesis takes a potentially controversial stance from the perspective of some ecocritics in focusing on the human end of the scale. This positioning connects to the idea of human existence as an inextricable part of natural ecologies thereby linking to an important train of thought running through the work

¹² See Dan Rebellato, 'When We Talk of Horses: Or, What Do We See When We See a Play?', *Performance Research*, 14 (1) (1st March 2009), 17-28.

¹³ For example: Lawrence Buell, *The Environmental Imagination: Thoreau, Nature Writing and the Formation of American Culture* (Cambridge MA: The Belknap Press of Harvard University Press, 1995); the collection of readings in Cheryll Glotfelty & Harold Fromm, eds., *The Ecocriticism Reader: Landmarks in Literary Ecology* (Athens: The University of Georgia Press, 1996), including William Rueckert, 'Literature and Ecology. An Experiment in Ecocriticism' (pp. 105-123) and an extract from Joseph W. Meeker's 1972 book *The Comedy of Survival* (New York: Charles Scribner's Sons), 'The Comic Mode' (pp. 155-169); Karla Armbruster and Kathleen R. Wallace, eds., *Beyond Nature Writing. Expanding the Boundaries of Ecocriticism* (Charlottesville: University Press of Virginia, 2001); Greg Garrard, *Ecocriticism. The New Critical Idiom* (London: Routledge, 2004).

of thinkers such as Bateson,¹⁴ and Timothy Morton.¹⁵ Morton, indeed, considers the paradox that ‘the idea of nature is getting in the way of properly ecological forms of culture, philosophy, politics and art’.¹⁶ I therefore coin the term ecoanthropocentrism to describe awareness of the inextricable entanglement of human and planetary ecologies rather than to suggest that it is a new idea, thereby (as Kershaw might say) ‘linguistically mimic[ing] the congress without which there can be no dynamic engagement between environments and their organic guests’.¹⁷

One of the arguments running through this thesis is the possibility that a blurring of the segmentation running through thought in many areas of society (and which includes the nature/culture divide) might result in a fusion of two quite separate ecocritical concepts: anthropocentrism and ecocentrism. The ecological lens informing this thesis reminds us of the risk that ecocentrism could be subverted, thus it might turn out to be anthropocentrism in disguise. If ecoanthropocentrism is defined as a fusion of nature and culture, the nature/culture divide can then be defined as its opposite. The very hybridity of the term ecoanthropocentrism is however a useful reminder of the ever-present trap in all human thought of reintroducing divides in thinking not intended to contain them, thereby once again ‘assign[ing] agency to both sides of the Cartesian binary’,¹⁸ rather than thinking in terms of the system overall.

Key Terms and Definitions

In the above paragraphs, I use several key terms to frame the idea of the environment on stage. They reappear throughout and are critical to the thesis. I therefore pause for a moment to provide definitions for the following: ‘ecosystem’, ‘shapeshifter’, ‘ecoanthropocentrism’ and ‘ecoefficacy’.

In scientific terms an ecosystem is a ‘complex system of organisms and their controlling environment’. In ecosystem science, the ‘controlling environment’ tends

¹⁴Bateson, *Steps to an Ecology of Mind* (Estate of Gregory Bateson, 1972: Chicago: University of Chicago Press, 1972, 1990). Also, by the same author, *Mind and Nature: A Necessary Unity* (Cresskill, NJ: Hampton Press, Inc., 1979, 2002).

¹⁵Morton, *Ecology without Nature: Rethinking Environmental Aesthetics* (Cambridge MA: Harvard University Press, 2007).

¹⁶ Morton, 2007, p. 1.

¹⁷ Kershaw, ‘Projecting Climate Scenarios, Landscaping Nature, and Knowing Performance: On Becoming Performed by Ecology’, *Green Letters: Studies in Ecocriticism*, 20 (3) (2016), 270-289 (285).

¹⁸Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015), loc. 889.

to be divided into ‘biotic’ and ‘abiotic’ components, but it is important to note in the context of the discussion of analytical divides running through this thesis that the organic and inorganic dimensions of the environment are inseparable from each other because of the very nature of ecosystems as dynamic, living entities themselves. The idea that all ecosystems (including the entire planetary system) might be alive (albeit perhaps in a sense hard to comprehend for human beings) is captured by Gordon Dickinson and Kevin Murphy when they describe the ‘continuous flow of matter and energy between all of the elements’ in any given ecosystem.¹⁹ Their language recalls physicist James Lovelock’s well-known Gaia hypothesis,²⁰ bringing me to a critical point about this definition of the term ecosystem. Gaia was described by its inventor as a metaphor.²¹ In this work, when social systems or theatrical productions are described as ecosystems, the term is not used as a metaphor – I am also not, as Felix Guattari might fear, using ‘pseudo-scientific paradigms’ to hold the environment at arm’s length.²² I am using the term phenomenologically as a reference to flows of matter, energy and indeed ideas and emotions, which are nothing more nor less than flows of matter and energy themselves.²³ Ecosystems have several noteworthy characteristics: they are constantly moving; the flows running through them are ambiguous – they may help maintain equilibrium, or throw the entire system off balance, taking it to a new equilibrium. Equilibrium can take the form of oscillation in a range of phenomena, making it difficult for human or other life forms within it to distinguish one kind of movement from the other. When ecosystems go out of balance they may potentially enter a runaway phase, before stabilising in a new environmental regime. An ecosystemic (Gaian) perspective would see such a change (such as a hotter climate killing off some species) as neither good nor bad, but simply different.

Moving on to my next term, ‘shapeshifter’ usually denotes an entity that can change its form at will, as the Skriker does in the spirit world. In this ecotheatrical

¹⁹ Dickinson and Murphy, *Ecosystems* (Abingdon: Routledge, 1999 and 2007).

²⁰ See also Gabriel Egan, *Shakespeare and Ecocritical Theory*, (London: Bloomsbury Arden Shakespeare, 2015), pp. 37-38.

²¹ See for example Lovelock, ‘Science and Nature Live Chats’, *Guardian*, 29 September 2000 <www.theguardian.com/books/2000/sep/29/scienceandnature.livechats>.

²² Guattari, *The Three Ecologies* (London: Bloomsbury, 2000), p. 24.

²³ Dickinson and Murphy, describing system science as applied in the context of ecosystem analysis, refer to the ‘physical or conceptual’ elements used to define system boundaries, loc. 587.

context, shapeshifters can take many guises. Any self-shapeshifting entity could take the form of an ecosystem as defined above, or a feedback loop within an ecosystem – the Skriker, for example, can be seen as both. Shapeshifters inhabit ecosystems, which means that an entity that changes in visible or invisible ways inevitably also changes the environment it is embedded in. The most effective shapeshifters are defined as those that exert an influence going well beyond their immediate environment. To achieve this, they do not necessarily need to be large or powerful in themselves. The direction of change exerted by a seemingly minor shapeshifter could be magnified by other shapeshifters that happened to be moving in the same direction at the same time. The reverse also holds: the direction of change in an ecosystem exerted by a powerful shapeshifter could be nullified by conditions in the overall system. This definition of ecosystemic shapeshifters is shaped, so to speak, by my reading of the work of MIT systems scientists such as Donella H. Meadows. She describes ‘reinforcing, self-enhancing’ feedback loops (leading to ‘runaway growth or runaway collapses over time’); ‘balancing’ feedback loops (amounting to ‘sources of stability’ and ‘sources of resistance to change’); and ‘ways in which [systems] create [their] own behaviour’, a consequence of the combined activity of everything within them.²⁴ Shapeshifters can also be described as flows of energy, matter, ideas and emotions, shaping or being shaped by other such flows. Any aspect of a live theatrical production (the actors, the text however defined, design, movement or sound or indeed the production as a whole) is potentially a shapeshifter in all senses of the term as used here. Aspects of the cultural context, such as the nature/culture divide discussed throughout this thesis, are also shapeshifters. Like the ecosystems they are found in, shapeshifters are ambiguous. Their effects can be good or bad for the environment and human relationships with it – they are neither anthropocentric nor ecocentric, but both.

As I tussled with this duality – anthropocentrism and ecocentrism – in the course of writing this thesis, I decided to coin the term ‘ecoanthropocentric’. The problem with the separate terms is that they contain, in themselves, the nature/culture divide. Ultimately, anthropocentrism is a form of environmental ecocentrism because it is impossible for it to be anything else – indeed, anthropocentrism could

²⁴ Meadows, *Thinking in Systems: A Primer* (White River Junction: Chelsea Green Publishing Company), loc. 653-699, and 3238.

be regarded as an ecosystemic feedback loop containing seeds of destruction designed to impose limits on an animal overstepping system limits. Unlikely as it may seem, ecocentrism is thus anthropocentrism because the mindset of the ‘animal that thinks it isn’t one’ is embedded in both sides of the duality.²⁵ Paraphrasing Kershaw’s witty six-word phrase – the ‘animal that thinks it isn’t one’ – an ecoanthropocentric human being is an animal that knows it is one.²⁶ An ecoanthropocentric perspective, as defined here, knows that ideas and emotions are experienced through the body. (This is particularly evident in live theatre, which is experienced phenomenologically, thus live theatrical performance is a promising locus within which to cross divides.) An ecoanthropocentric mindset may well not be attainable by the ‘animal that thinks it isn’t one’. Ecoanthropocentrism is divide-blind. Such a mindset relishes the idea that ideas and emotions are nothing more than flows of matter and energy generated by chemistry at work in a mind-body unity. It accepts that humans might happen to have an influence on the ecosystems they inhabit and are inhabited by (and also happen to be in their own right); but humans are not central to them, and are never in control. This key point shapes my next definition.

The idea of ‘ecoefficacy’ was inspired by Kershaw’s 1992 exploration of efficacy in the context of radical theatre. He describes the uncertainty inherent in the idea of theatrical efficacy, in two important respects. First, his description of theatrical performances as ‘ludic’ experiments neatly introduces the unpredictability of live theatrical events, in terms of what happens on stage and how their audiences react. Secondly, he considers the difficulty of finding evidence in support of the efficacy of radical theatre (defined as its ability to bring about change), and the possibility of finding such evidence obliquely, on the basis of contextual conditions that might make any given performance more effective. His discussion struck me as ecosystemic, and I felt the need for a word that would re-emphasise this dimension of the term efficacy. ‘Ecoefficacy’ thus contains the idea that a performance-related ecosystem, as defined above, can metamorphose in its own right, bring about change

²⁵ Egan describes the ‘mutual interdependency’ of the two terms in dualisms as ‘bind[ing] together and explod[ing] the terms as merely relational [...]’. See *Shakespeare and Ecocritical Theory*, p. 23.

²⁶ Kershaw, *Theatre Ecology: Environments and Performance Events* (Cambridge: Cambridge University Press, 2007), p. 26.

in other ecosystems connected to it and adapt to changes wrought upon it by them. Effective theatrical events are shapeshifters in all senses of the term discussed above. Theatre that campaigns for the environment could be considered to be ecoeffective should it lead to constructive developments from a planetary perspective, thereby overtly fulfilling its stated aim, but because of live theatre's shapeshifting qualities this is only one possibility. Theatre undertaken without any such objective could also be ecoeffective, on the basis that theatrical performances, as ecosystems, contain random flows of energy, matter, ideas and emotions. An element of control might be brought to bear by the shape of the system itself, together with other systems it is embedded in, but no single participant controls how particular performances evolve. An ecoanthropocentric mindset, as defined above, accepts that live theatrical performance is ecosystemic. A further key point follows from this. Live theatrical performances, as ecosystems themselves, are potentially ambiguous. The term ecoefficacy could imply change in good or bad directions for the environment. As used in this thesis, ecoefficacy denotes a constructive direction of change, but the ecoanthropocentric user of the term recognises that all involved must be aware of (and minded to try and head off) the possibility of ecoefficacy in unintended, thus potentially harmful directions, from the perspective of the planet.

I want to conclude this section on definitions by returning to the first definition – and, specifically, to the following sentence: “When ecosystems go out of balance they may potentially enter a runaway phase, before stabilising in a new environmental regime.” When social or cultural systems go out of balance, they, too, may enter a runaway phase, before returning to equilibrium in a new social or cultural regime. The tendency of social and cultural systems to follow the same behaviours as ecosystems may be key to understanding how social or cultural systems can throw entire environmental ecosystems out of balance.

The Structure of the Thesis

The thesis falls into two parts. Part One, which runs from Chapter One to Chapter Three, develops the ideas and concepts described in this introduction. Chapter One explores the nature/culture divide running through the above discussion. Chapter Two considers in further detail the narrative of occlusion running through theatre

ecocriticism, with reference to the work of ecocritics such as Chaudhuri,²⁷ Downing Cless,²⁸ and Carl Lavery and Clare Finburgh.²⁹ A range of actually or potentially ecotheatrical plays and productions are also mentioned in this chapter, and range from works of Shakespeare to the plays of Samuel Beckett to the important group of recent plays referred to throughout as the UK climate change plays.³⁰ Chapter Three explores theatrical events as ecosystems connecting to other ecosystems, as a possible response to the problem of identifying and measuring ecotheatrical efficacy. The Diamond Model, developed by the Theatrical Events Working Group of the IFTR over a number of years,³¹ is found to be a powerful idea in this context, on the basis that it contains the idea of theatrical event dynamics as an ecosystem, thereby developing one of the important ideas discussed above.

Part Two of this thesis is primarily empirical, and builds on the ideas in Part One. Two strands run through this work. Chapters Four (which focuses on dearth in performance) and Five (which focuses on theatrical reactions to natural disasters) are largely about seeking evidence of the presence of environmental shapeshifters on stage. These chapters ask whether the environment is present or absent as a shapeshifter, and indeed whether the nature/culture divide is also present (or absent) as a shapeshifter potentially running in the opposite direction. Chapters Six and Seven focus mainly on the power of live theatrical performances to trigger feedback loops and ecosystems in their spectators in the context of other feedback loops in the ecologies it is connected to. Chapter Six examines spectatorial responses as expressed in feedback forms to an ecological approach to energy on the part of an innovative theatre group. Chapter Seven considers the reaction of a specialist segment of the audience, the community of UK theatre critics, to a climate change

²⁷ Chaudhuri, 1994.

²⁸ Cless, *Ecology and Environment in European Drama* (New York: Routledge, 2010).

²⁹ Lavery and Finburgh, eds., *Rethinking the Theatre of the Absurd: Ecology, the Environment and the Greening of the Modern Stage* (London: Bloomsbury Methuen Drama, 2015).

³⁰ The plays and when they premiered: Churchill, *The Skriker*, 1994; Clare Pollard, *The Weather*, 2004; John Godber, *Crown Prince*, 2007; Waters, *Contingency Plan*, 2009; Nick Payne, *If There is I Haven't Found It Yet*, 2009; Mike Bartlett, *Earthquakes in London*, 2010; Moira Buffini, Matt Charman, Penelope Skinner and Jack Thorne, *Greenland*, 2011; Richard Bean, *The Heretic*, 2011; Simon Stephens, *Wastwater*, 2011; Duncan Macmillan, *Lungs*, 2011. For further detail see The UK Climate Change Plays below the main Bibliography, on p. 317.

³¹ Sauter, 'Introducing the Theatrical Event', in *Theatrical Events: Borders Dynamics Frames*, ed. By Cremona, Eversmann, Hans van Maanen, Sauter and John Tulloch (Amsterdam: Rodopi, 2004), pp. 3-14 (p. 12).

play in two productions two decades apart, and asks whether anything has changed in terms of the quality of their response. The Conclusion, in Chapter Eight, returns to the question of ecotheatrical efficacy and considers different ways in which this idea is relevant to theatrical events analytically constructed as ecosystems.

Part One

Chapter One. Ecocriticism and Cultural Divides

In his article ‘Performed by Ecologies’, Kershaw comments:

There is little doubt that humankind faces an environmental crisis [...]. But [...] denial is now ecologically systemic [...]. [T]he only way of averting our extinction is to perform more responsively and ethically with those ecologies.³²

His comment contains a puzzle: why, with so much evidence to suggest human beings are playing a dangerous game with the planetary ecosystems that support life, has behaviour not changed? He raises three questions that are directly relevant to the shapeshifter-efficacy dialectic running through the interconnected definitions of the four key terms discussed in the Introduction. First, is it the case that human beings are indeed in denial with respect to the need for behaviour to change in the name of self-interest if nothing else, to avoid a potential self-inflicted extinction event?

Alternatively, and more hopefully, are human beings somewhere in the ecosystem of social systems they inhabit – communities, markets, the sciences, the arts and so on – ecoaware with intent, thus proactively and coherently seeking ways to bring about a shift to a new environment-aware way of life? The third question relates to the quality of the cultural shift needed to bring about a more responsive, responsible relationship with our environment, in the form of the ecoanthropocentric mindset defined in the Introduction. In this chapter I problematize these three questions, initially through two contrasting experiences – one relating (once more) to a live theatrical production; the other, to a small selection of the output of a growing number of producers of environmental data I refer to throughout as ecodata.

In the ecoanthropocentric perspective of this thesis, ecotheatre and ecodata are connected in several ways. The producers of both (and perhaps also their recipients) aim to speak for the environment. Both initiatives can be seen as feedback loops in a larger ecosystem. As I shall argue below, whether they might be ecoeffective shapeshifters (in the sense that they succeed in bringing about a more responsible relationship with the environment) is not only determined by their

³² Kershaw, ‘Performed by Ecologies: How *Homo sapiens* could subvert present-day futures’, *Performing Ethos* Vol. 4 (2) (2015 [2013]), Abstract.

intrinsic qualities, but also by where they are situated in a much bigger system of feedback loops. This point hints at the potential powerlessness of these initiatives in the larger system that no single entity controls. However, from the perspective of cultural change, it is important to note that shapeshifting ecosystems can be found in unexpected places. By the end of this chapter it will be clear that, precisely because ecodata and ecotheatre are also ecosystems in themselves, obliquity, ambiguity and circularity may (or may not) give a false impression of occlusion or denial.

The Ecocritical Spectator: in Denial?

I now respond to Kershaw's assertion about systemic denial by considering Simon Dormandy's production of *Waiting for Godot*,³³ at the Arcola Theatre in June 2014 in London. I attended this production because I was interested to see if there were connections between Arcola's well-advertised ecoaware contextual theatricality and meanings in this production of the play.³⁴ I note that the company is quite clear about its environmental mission from the moment spectators come through the door. In the lobby of the theatre, a display board describes Arcola Energy. On the Arcola Theatre Company's website, production guidelines and support are offered to visiting companies.³⁵ The company's approach to carbon emissions is unusual in being absolute (couched in terms of carbon neutrality) rather than relative (e.g. annual emissions reductions versus a baseline). The company's 2007 feasibility study includes a pathway of steps designed to move incrementally towards zero carbon emissions, as charted in Figure A1.01 in the Appendix. This ambitious, performative approach to clean energy is hard to ignore, for spectators attending an Arcola production. The following is adapted from the blog in which I recorded my reaction to the performance:

The Arcola setting of Samuel Beckett's play *Waiting for Godot* was centred round a pile of rubble (seemingly the crumbling bricks of the theatre itself) in which the single naked tree stood, roots trapped.³⁶ The wreckage rising up in

³³ Beckett, 'Waiting for Godot', in *The Complete Dramatic Works* (London: Faber and Faber, 2006), pp. 7-88. 2014 cast: Tom Palmer (Vladimir); Tom Stourton (Estragon); Jonathan Oliver (Pozzo); Michael Roberts (Lucky). Design: Patrick Kinnonth.

³⁴ Arcola Theatre Company, Green Arcola- *Greening Productions*: Information, Guidelines and Production Support.

<www.arcolatheatre.com/wpcontent/uploads/2011/11/2013_Sustainable_Guidelines.pdf>.

³⁵ Arcola Theatre Company, Ibid.

³⁶ For some spectators, the bricks might have been a reminder of the recycled fabric of the theatre itself.

front of the audience resembled a huge desiccated wormery whose inhabitants had long fled. It was so dry that that, in the interval, jugs of water were thrown to slake the dust that might otherwise choke us all. In this utterly awful place Didi and Gogo waited for Godot, and the limits and pressures of human physiology and psychology visibly shaped the human suffering playing out before us.³⁷

Embedded in this ecocritical spectatorial reaction is my awareness of the environment as an ecosystemic shapeshifter working through the behaviour of human beings trapped in an utterly degraded environment lacking food, water or shelter. The sense of immersion in the experience was clearly intended by the production team – the wreckage of dilapidated, abandoned chairs strewn towards the back of the area that had apparently once been a building bore a striking resemblance to those we spectators sat in. Also, present in the tree was an unstated – thus occluded in the sense that it is hidden but nevertheless present – extratheatrical intertextual reference. This was my memory of a specific cataclysmic event – the Fukushima earthquake and tsunami in which a solitary pine tree not swept into the sea along with the rest of the forest and people's lives and livelihoods became a media icon of the disaster.³⁸ So important was this tree as a symbol of endurance against impossible odds that it had appeared on stage two years earlier when director Yukio Ninagawa picked up the reference in his 2012 production of *Cymbeline*. In the final scene, a pine tree stood in place of the cedar tree,³⁹ as a symbol of hope.⁴⁰ Eventually the real-life Fukushima tree (which succumbed to the alien salty environment its roots were now trapped in) was rebuilt as a national monument.⁴¹

Notwithstanding the high profile of the Fukushima tree in the media, it is impossible to say whether other members of the London audience around me,

³⁷ Adapted from *Julie's Ecotheatre Blog*. Hudson, 'Arcola Theatre: Waiting for Godot' (Warwick Blogs, 16th June 2014) <Blogs.warwick.ac.uk/juliehudson/>.

³⁸ Danielle Demetriou, 'Sole surviving pine tree and symbol of Japan's post-tsunami hope is dying', *Telegraph*, 5th December 2011 <www.telegraph.co.uk/news/worldnews/asia/japan/8935112/sole-surviving-pine-tree-and-symbol-of-Japans-post-tsunami-hope-is-dying.htm>.

³⁹ Shakespeare, *Cymbeline*, ed. by J. M. Nosworthy (London: Arden Shakespeare, an imprint of Cengage Learning, 1955 repr. 2007), V, v, 454-55.

⁴⁰ Haikugirl's Japan, Ninagawa's *Cymbeline*, Blog Post, 9th June 2012 <www.haikugirl.me/2012/06/09/ninagawas-cymbeline-2/>.

⁴¹ Sarah Malm, 'The miracle pine: Tree that survived 2011 Japanese tsunami before dying six months ago is rebuilt as a monument to 19,000 victims of the disaster', *Mail Online*, 11th March 2013 <www.dailymail.co.uk/news/article-2291799/The-miracle-pine-Tree-survived-2011-Japanese-tsunami-dying-months-ago-rebuilt-monument-19-000-victims-disaster.html>.

thousands of miles away from Fukushima and three years on from the disaster, also connected this performance to this tree in this specific environmental disaster in the specific context of the Arcola Theatre. Speaking as a spectator, it was an integral part of the cultural context and playing culture that informed my spectatorship of this theatrical event. Others may have brought quite different sensibilities to the event. Thus, to give another example, someone who happens to have experienced famine or chronic hunger directly might be less aware of potential connections to the Fukushima tree because of the blocking effects of a more dominant theme, as Joseph Roach explains:

Like the "abode of stones" of which Lucky speaks in his thrice-repeated naming of Connemara (Godot, 28-29), rural Ireland is haunted by dead voices. To anyone who is prepared to listen, they speak of the consequences of the potato famine, or the Great Hunger, the effects of which endured long after its deadliest years, 1845-51.⁴²

Just as the Skriker's opening speech as described in the Introduction spun out fragments of meaning that might connect to different spectatorial brains in different ways, for Roach the effect of Lucky's incantation was to set moving theatrical feedback loops connected to Irish history.⁴³ Thus, for each of us memory was at work in different ways in *Godot*, reinforcing certain environmental feedback loops embedded in the play and its productions. I also note that it was not my awareness of Arcola's green electrical credentials that sparked my response. Rather, it was the physicality of the set, the dust, the tree, the rubble, the acting and the narrative that forged the ecosystem of my reactions to the whole. As a spectator vicariously experiencing post-apocalypse privation I was mentally reperforming the ecologies of Beckett's landscape of environmental wreckage. However, the idea of responsibility for ecoaware operational ecologies lay elsewhere. I was insufficiently connected to them in the moment, unless subconsciously, to observe any embedded ecotheatrical effects they might have had on the aesthetics of the production. A nature/culture

⁴² Roach, "'All the dead voices': The Landscape of Famine in *Waiting for Godot*", in *Land / Scape / Theater*, ed. By Elinor Fuchs and Chaudhuri (Ann Arbor: University of Michigan Press, 2002), pp. 84-93 (p. 88).

⁴³ David Bradby describes French audiences who brought into the theatre with them the 'images of starvation, sickness and exploitation' of the recent Nazi occupation. *Beckett: Waiting for Godot* (Cambridge: Cambridge University Press, 2001), p. 72.

divide can thus be seen to run through my response to this production. Based on my ecocritical response to *Godot* I cannot be described as a spectator in denial regarding my embeddedness in the environment, but something that might, wrongly or rightly, be interpreted as denial is ‘ecologically systemic’ in my reaction, seen as an integral part of this theatrical event.

Ecoanthropocentrism or its Opposite, With and Without Intent

The experience of *Waiting for Godot*, above, can be described as ecoaware with intent in two respects: Arcola performs responsibly from the perspective of the company’s energy profile, and responsibly makes its spectators aware of the fact. I brought an ecocritical perspective to the production, and this shaped my response. These two dimensions can be described as ecological feedback loops. What is unclear is whether they are connected in a meaningful way within the overall ecosystem of this theatrical event, for, if they are not, it might be fair to describe them as occluded in the sense that they are blocked or interrupted. On the other hand, if they are indeed separate, does it matter? Alternatively, is separation impossible because both perspectives are seen by the same ecosystemic spectatorial brain? This same quandary is encountered many times, in different ways, in this thesis: if the stuff of theatrical operations is radically altered, does it have any effects on production and reception, and does it matter, from the perspective of ecotheatrical efficacy, if this is not the case, or if no one notices? Alternatively, how might green theatrical operations unconnected to performance practices on stage nevertheless shape the theatrical event in the round? One possibility in the above experience is that the immersive qualities of the Arcola *Godot* can be described as a product of ecoanthropocentrism – being in fact a product of the ecotheatrical ethos driving the production as well as the company’s approach to electrical energy and materials. Another is that my spectatorial awareness of this ethos shaped the co-creative lens through which I consciously and unconsciously responded to the event. Both would count as meaningful connections between theatrical aesthetics and theatrical operations within the overall system of reactions at work in the theatrical event. The opposite possibility is that binary thinking runs through production and reception alike. The production team may have been unaware of any physical, psychological or cultural effects arising from Arcola’s green energy. For spectators, green energy

ideas might have been left behind in the lobby alongside the aforementioned displays.

Such divides running through theatrical events, albeit unintentionally, might be representative of divides in society more broadly, and indeed may therefore potentially explain what is putting the brakes on the change Kershaw proposes. Thus, binary thinking may ironically be present as a shapeshifter in theatrical events produced by an ecoaware theatre company that is recognized by its spectators as seeking to make a positive difference in the context of the relationship between theatrical production and the environment. Perhaps one feedback loop – binary thinking – is over-riding another, a cultural shift in theatre companies signalled by green energy. Perhaps such ecological effects themselves are at the root of the occlusion problem Chaudhuri describes. Returning to the four key terms defined in the Introduction, the shapeshifting power of the nature/culture divide as an ecotheatrical feedback loop is demonstrated by the above spectatorial experience. In the ecosystemic context of live theatre, denial can be the very opposite of an absence of ecological meaning, but this point is apparent only if the double-edged meaning of the term ecoefficacy is (ecoanthropocentrically) recognised.

Thus, a further possibility is that the perception of the occlusion problem itself is rooted in a similar binary – the impression of occlusion may be illusory.⁴⁴ This possibility is suggested by the fact that the narrative persists even in the year of the second important (overtly ecocampaigning) production of Churchill's play described above. In 2015, Chaudhuri commented in the same vein:

The persistence I am talking about – the persistence of a fundamentally anthropocentric, non-ecological perspective on life – is fuelled by the organization and practices and assumptions of just about every field of human endeavour, from the sciences, to politics, to economics, and the arts have not, so far, managed to disrupt that dominant perspective enough to make a difference.⁴⁵

⁴⁴ Chaudhuri, 1994, p. 23.

⁴⁵ Chaudhuri, 'A "Turn to the Species": Chaudhuri reflects on some of the Ethical Challenges and Possibilities that are Emerging from a Decade of Ecological Performance Practice and Scholarship', interviewed by Bronwyn Preece and Jess Allen, *Performing Ethos*, 4 (2) (2015 [2013]), 103-111 (105).

Binary thinking can reasonably be described as running through this comment, in the form of divisions between nature and culture, and the arts and sciences. Ironically, this comment, notwithstanding the fact that it is ecological in intent, might thus also be representative of the nature/culture divide this thesis sees as running counter to a more balanced relationship between human beings and nature.

Taking this a stage further, I want to challenge the idea that a ‘fundamentally anthropocentric’ perspective stands in opposition to nature. After all earthly systems are embedded in the body, and the body is embedded in earthly systems. The unavoidably ecological nature of the human body raises an important and powerful possibility. As a product of human brains an anthropocentric perspective can be nothing other than a product of nature, ecology and biology, capable of interacting within earthly systems and every living species within those systems in good and bad ways. Perhaps, then, the possibility of ‘disrupting’ the environmental degradation that threatens the quality of life and indeed the very existence of planetary life-forms (including humans) lies in our ‘fundamentally anthropocentric’ perspective. In the sciences, economics, politics and the arts anthropocentrism is an unavoidable dimension of human relationships with nature. All four subject areas may contain feedback loops embedded in them with the power to override the lived experience of the nature/culture divide. In the context of the puzzle discussed at the opening of the chapter, anthropocentrism might potentially be an answer to environmental denial, impossible though this may seem at first sight from an ecological perspective. Thus, the real Gordian knot in this discussion may be the nature/culture divide running between and throughout eco- and anthropocentric polarities. The term ecoanthropocentrism as used in this thesis serves to reinforce the proposition that only if ecocentrism and anthropocentrism are themselves recognized as (ecoanthropocentric) hybrids is the divide likely to be bridged.

The presence of the nature/culture divide where it might be least expected – running through ecocritical contexts albeit without intent – suggests that further insight on the problem of intent might be gained by considering one of the other ‘communities’ (as Kershaw describes them) seeking to address similar concerns about the environmental crisis. This is the widespread, varied network of environmental data producers at work in the name of environmental protection. In the next few paragraphs I therefore explore eco-efficacy in the broader cultural

context within which theatrical (and ecotheatrical) events discussed in the next chapters are performed. The paragraphs below approach the ecotheatrical efficacy discussion at work in this thesis through the medium of environmental charts based on data-sets compiled in the context of regulation and economics as well as science. Data producers in the sciences and economics are unlikely to be entirely blind to the impossibility of separation between human and planetary ecologies. To describe their inevitably instrumental activities as anthropocentric in the pejorative sense often implied by this term would be to mirror the nature/culture divide underpinning an environmentally destructive society. The stance taken by the creators of these databases might be better described by the word coined above, and necessary only because of the divide: ecoanthropocentrism. I name these and similar databases *ecodata*, defined as data compiled and plotted by people and organisations intent on changing the relationship between society and the planet, by proactively leveraging the tools of accounting, economics and science to help bring about a shift to a new environment aware way of life.

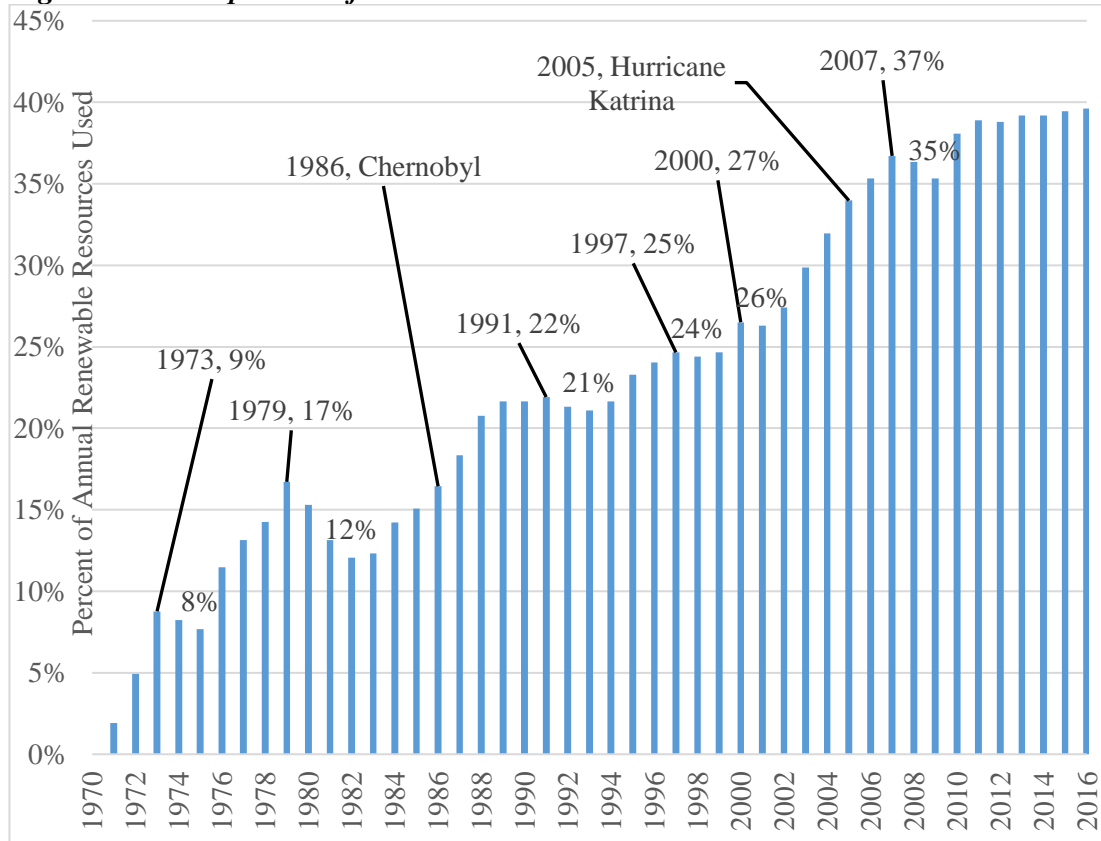
Ecosystem Alignments: Efficacy, Potential Efficacy and Inefficacy

Ecodata: Resource Profligacy

The first dataset highlights the problem of resource profligacy today in exchange for resource depletion for future generations. It is the work of the Global Footprint Network, and takes the form of an ecoanthropocentric accounting system in which a narrative of human pressure on the annual supply of renewable resources is constructed with ecopolitical intent. So-called Earth Overshoot Day (EOD) is announced every year by the Global Footprint Network. This is the day on which, as calculated by the Network, human beings have used all the available renewable resources on the planet for that calendar year. The idea of natural resources for human use captured within an accounting system could, at first sight, hardly be less ecoanthropocentric. It is what the data communicate that takes the discussion into ecoanthropocentric territory. In 2016, EOD was on August 8th. This means that, according to this analysis, human beings were living on borrowed resources for about forty percent of the year in 2016. Moreover, as Figure 1.01 shows, our ecological indebtedness has risen steadily since 1970, when records began. It could not be clearer to human beings familiar with the sometimes-visceral consequences of banking crises, government debt, health service deficits or credit card debt in

everyday life that this trend towards increasing indebtedness is fundamentally unsustainable.⁴⁶

Figure 1.01: Proportion of the Year in Environmental Debt



Source: Global Footprint Network

Although the human draw-down on planetary resources depicted in this chart has not risen in a straight line, the years in which usage briefly reduced (e.g. 1973 to 1975, 1979 to 1982, 1991 to 1993 and 2007 to 2009) do not provide any hope of a reversal in the trend. The momentary slowdowns seemed to be prompted by temporary downturns in the economic growth cycle, higher commodity prices, or some combination of the two. Economic mind-sets (thus, culture) seem to underpin the trends shown, even in contexts in which ecoawareness can be described as relatively high, such as a 1991 colloquium on the ecologies of markets and the potential for externality pricing to change behaviour:

⁴⁶ See also Paul Donovan and Julie Hudson, *From Red to Green? How the Financial Credit Crunch Could Bankrupt the Environment* (London: Earthscan). A similar chart is used to explain a concept not applied here – the ‘environmental credit crunch’. (Figure P.1, loc 154)

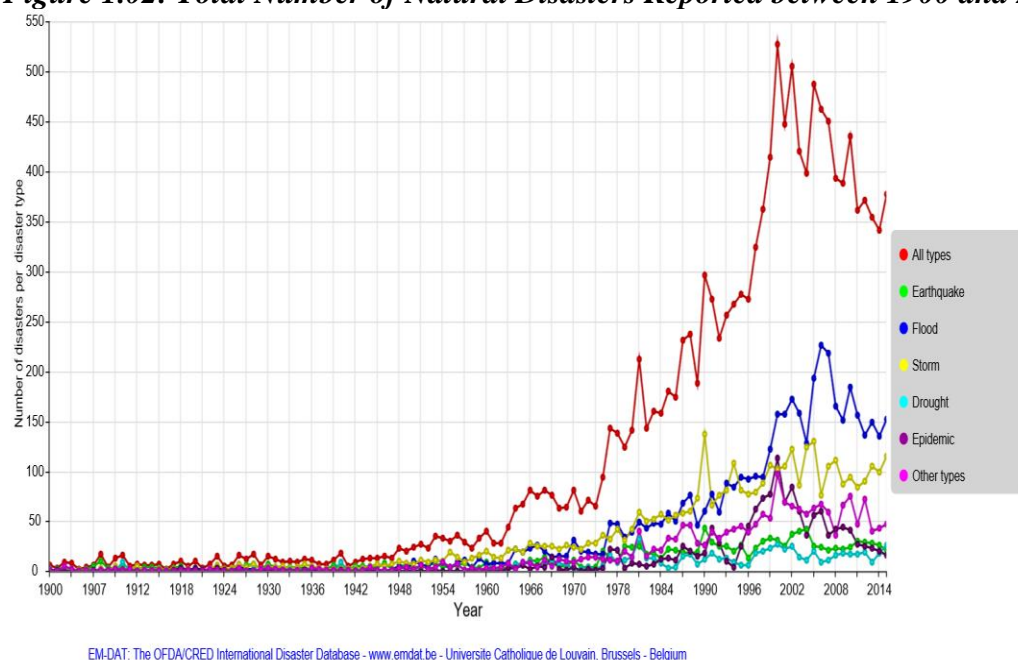
Notwithstanding the practical difficulties that arise in externality pricing, the logic of these fees is that they turn the economy into the economic equivalent of a closed ecological system. [...]. In closing the circle, the internalized economy does not actually need to close the physical cycle [...]. [T]he notion of running the economy solely on renewable resources is no more sensible than bulldozing the houses to allow the forest primeval to regenerate. The economy will be transformed over time as it moves [...] to some future fuel.⁴⁷

The elegance of the idea of the economy as a closed ecological system in this comment is belied by the nature/culture divide running through it. It protests too much, resorting to exaggeration and mockery to mask the reality of ecological limits and pressures, in an act of seeming denial.

Ecodata: Evidence of Ecosystem Volatility

The nature/culture divide running through human thinking may also explain why repeated shocks in the form of environmental catastrophes (such as Chernobyl in 1986 and Hurricane Katrina in 2005, both marked on the Global Footprint Network chart) do not appear to have been effective in bringing about changed human relationships with the planet on the evidence of the ecodata in Figure 1.01 (p. 35).

Figure 1.02: Total Number of Natural Disasters Reported between 1900 and 2014

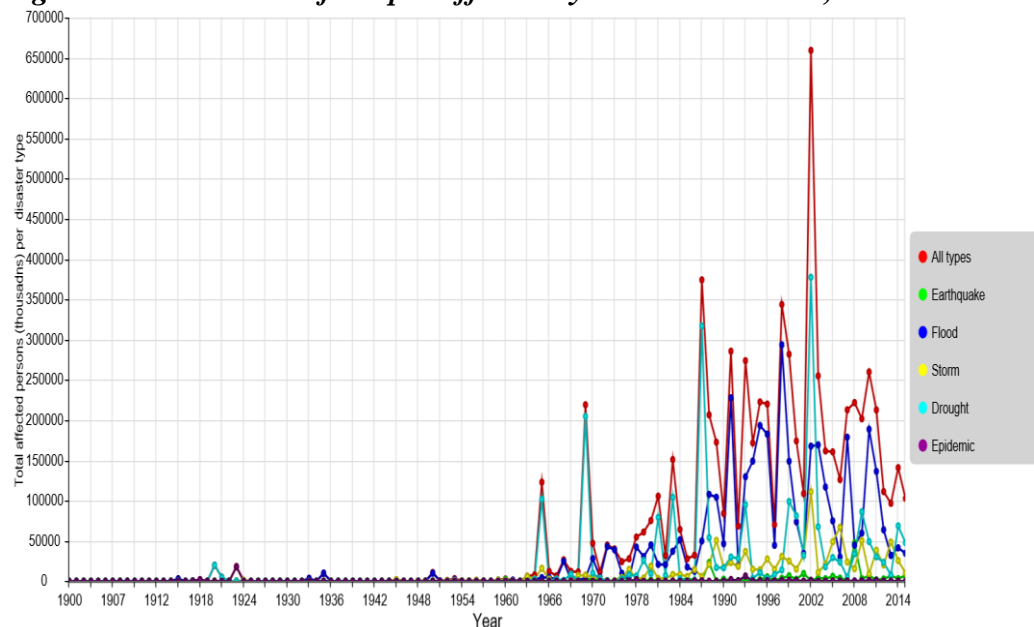


Source: EM-DAT. The OFDA/CRED International Disaster Database

⁴⁷ William D. Nordhaus, 'The Ecology of Markets', *Proceedings of the National Academy of Sciences of the United States of America*, 89 (3) (February 1st 1992), 843-850
<www.econcycle.edu/~nordhaus/homepage/ecologyofmarkets.pdf>.

Ecosystem instability is the subject-matter of this second dataset, drawn from the International Disaster Database of the Centre for Research on the Epidemiology of Disasters (CRED).⁴⁸ This ecosystem of databases (drawn from a range of different sources, including UN agencies, non-governmental organisations, insurance companies, research institutes and press agencies)⁴⁹ depicts seeming evidence of increasing volatility in social systems potentially driven by ecologies ironically rendered less stable as a consequence of human action. These data thus spell out the consequences of extreme ecosystem events such as flood, storm, drought and disease for human communities. Figures 1.02 and 1.03 plot, respectively, the total number of reported natural disasters and the numbers of people affected by them between 1900 and 2014.⁵⁰ In Figure 1.02 (p. 36) flood and storm are shown to have risen in frequency in recent years, and in Figure 1.03 (below) increasing numbers of people have been hit by drought and flood.

Figure 1.03: Numbers of People Affected by Natural Disasters, 1900 to 2014



EM-DAT: The OFDA/CRED International Disaster Database - www.emdat.be - Université Catholique de Louvain, Brussels - Belgium

Source: EM-DAT. The OFDA/CRED International Disaster Database

⁴⁸ The Centre for Research on the Epidemiology of Disasters (CRED)/Office of Foreign Disaster Assistance (OFDA) International Disaster Database Project (EM-DAT) project.

⁴⁹ D. Guha-Sapir, R. Below, Ph. Hoyois – EM-DAT: The CRED/OFDA International Disaster Database – www.emdat.be – Université Catholique de Louvain, Brussels.

⁵⁰ It has not been possible to magnify the font in Figures 1.02 and 1.03. Red series plot the total number of natural disasters and people affected by them, respectively.

Such changeability in the weather is predicted to increase with rising average global temperature by the scientific work of bodies such as the Intergovernmental Panel on Climate Change. I have not shown economic damage as plotted by CRED, because it evolves exactly as would be expected, adding nothing to the above perspective. It is however important to recall the twin roles of population growth and economic growth in the runaway spiral of resource over-use, where growth reinforces resource over-use reinforces growth, visible in the Footprint Network data.

Ecodata: Assigning Blame for Greenhouse Gas Emissions

This third dataset is ecopolitical with intent in seeking to assign responsibility for the rapid expansion of fossil fuel use since the British Industrial Revolution. The interactive map through which this is done is the output of a data ecosystem imaginatively created by researcher Aurelien Saussay of the Observatoire Français des Conjonctures Economiques (OFCE).⁵¹ It draws on the CDIAC database of CO₂ emissions from fossil-fuel burning, cement production and gas flaring, and the HYDE project's gridded population database.⁵² In a time-lapse film the most carbon-intensive locations become increasingly brightly lit, starting with England and radiating outwards as time passes in order to:

construct a clear visualization illustrating both the respective historical responsibilities of each region of the world in the total amount of carbon emitted, and the progressive extension of the industrial revolution over the past 250 years.⁵³

If an ecoanthropocentric perspective suggests a problem to be systemic thus the product of an ecosystem no single entity is completely in control of, the idea of casting blame embedded in the term 'historical responsibilities' can also be seen to be a product of the nature/culture divide. As such, it is unlikely to be effective in changing the problematic culture. This can be demonstrated by extracting a

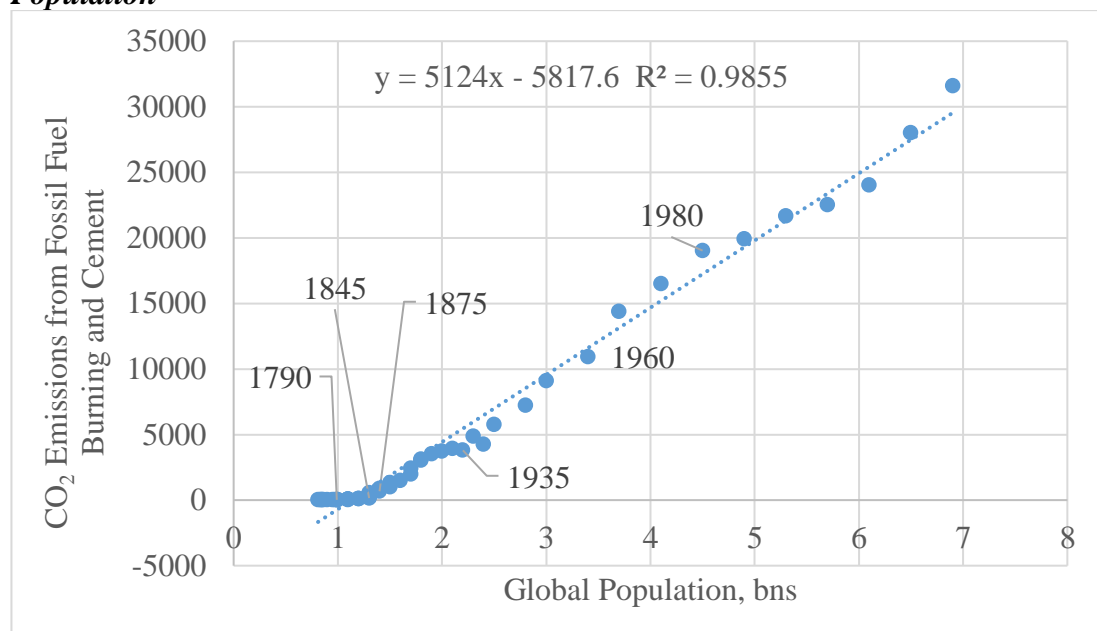
⁵¹ See <www.ofce.sciences-po.fr/equipe/chercheurs1.php>.

⁵² Saussay, 'Global Historical Emissions Map: Methodology' <<https://aureliensaussay.github.io/historicalemissions/methodology.html>>. The CDIAC is the Carbon Dioxide Information Analysis Centre located at the US Department of Energy's Oak Ridge National Laboratory. HYDE is the History Database of the Global Environment. <<http://themasites.pbl.nl/tridion/en/themasites/hyde/introduction/index-2.html>>.

⁵³ Saussay, Methodology, 'Global Historical Emissions Map: Methodology' <<https://aureliensaussay.github.io/historicalemissions/methodology.html>>.

selection of data-points from the mapping tool, and plotting CO₂ emissions against population as a simple linear regression, as shown in Figure 1.04, below. It is impossible to tell, from this chart, which way causality runs. The science of ecology, however, explains population numbers for living species in general as able to grow because of the way they happen to exploit available renewable resources. Ecology also describes population cycles in which numbers wane as they become too great for the resources that support them, and wax again as their food system recovers. Fossil fuel energy harnessed to scientific discovery allowed each human individual to go beyond the immediate constraints of his or her own bodily energy balance. It is possible to speculate that from about 1850 onwards the relationship between population growth and fossil fuel energy depicted in Figure 1.04 became a self-reinforcing ecological spiral, a positive feedback loop in the parlance of environmental science, and a vicious circle considering the harm done.⁵⁴ The point is that this was not done with intent. Rather, if the problem of the environmental crisis is to be understood, this pattern must be recognised as the work of the environmental shapeshifter.

Figure 1.04: A Post Enlightenment Perspective on Greenhouse Gas Emissions and Population



Sources: Saussay, CDIAC, HYDE

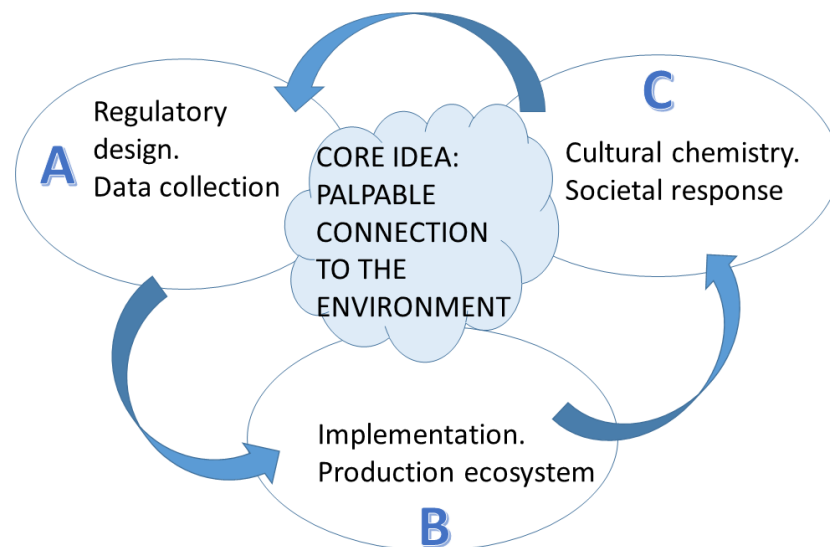
⁵⁴ See Kershaw, 2015 [2013], 114. Figure 1 in this article shows Bateson's 2000 [1972] 'astounding' diagram of the 'ecological crisis' as a downward spiral.

As a product of ecosystems, the population-resource nexus performed in the above chart was not the product of denial. It is visible only with the benefit of hindsight. As such, it may be fairer to call it the joint product of two shapeshifters – the nature/culture divide and the environment. The quality of cultural change needed to escape from the runaway spiral besetting the climate system becomes the key point.

EcoEfficacy and Circularity: Double-Edged Effects in the Ecologies of Performance

If they are ecologically effective, such ecodata may be designed to help human beings reperform (thus, understand, embody and potentially avoid) adverse human impacts on the natural environment that supports all life forms including human ones. This idea is presented in Figure 1.05 (p. 40), in which the cyclical process intentionally suggests that social change follows a circular, thus, ecological path.

Figure 1.05: Cultural Change as a Feedback Loop



In the first stage of the feedback loop shown above (A), organisations moving for cultural change with respect to the environment might try to communicate a palpable connection to the environment by (for example) launching an environmental initiative designed to address a problem people are already physically aware of (such as air pollution doing damage to human health); or constructing evidence designed to give physical expression to the problem, such as the resource foot-printing of the

Global Footprint Network. The next stage in the process (B in Figure 1.05) might be to design a delivery infrastructure, such as a body of regulation calculated to bring about other physical changes (e.g. to food, transport or energy systems), and reporting frameworks designed to provide feedback (such as the level of particulates in the air in cities or the inclusion of environmental inputs and outputs in standard company accounts). The next stage in the process (C in Figure 1.05) is how those affected by this soft infrastructure respond to it. A virtuous circle in favour of the planet is a possible outcome – Figure 1.05 potentially represents the optimistic scenario discussed above. In Figure 1.05, the most important element is the idea at the core of the initiative. If the idea of putting the environment at the core were replaced, say, by the idea of turning a profit, this might have the effect of interrupting the ecoanthropocentric virtuous circle, or, indeed, of reshaping it to environmentally damaging effect. In a good example of ecoanthropocentrism, the opposite possibility is also present – quite by accident, turning a profit might also happen to help the environment; the question is whether such a possibility should be left to chance as Nordhaus seemed to suggest.

The range of possible outcomes for such initiatives can be expressed in terms of the terminology Kershaw applied to political theatre. Paraphrasing the opening words in the introduction to his 1992 book on the performance politics: efficacy is about the ways in which certain groups and organisations have tried to change ‘not just the future action’ of their target audiences, but also the structure of human systems that shape the draw-down on planetary resources as well as the nature of the cultures informing such structures. The efficacy of applying ecodata-driven approaches to the problem of environmental degradation will depend on the extent to which these efforts are aligned with a broader social movement in the form of ‘*conditions of performance that are most likely to produce an efficacious result*’.⁵⁵ Putting this in another way: if ecodata initiatives or ecotheatrical events take place in a culture that is aligned with the ecological perspective that underpins them, their efficacy (actual or potential) might be relatively high. This idea is mapped diagrammatically in Figure 1.06, which fleshes out Figure 0.02 (p. 18).

⁵⁵ Kershaw, *The Politics of Performance: Radical Theatre as Cultural Intervention* (London: Routledge, 1992), p. 1, p. 3.

Figure 1.06: Ecodata Alignment Map – How Alignment Shapes Efficacy

Less <<< Momentum in Ecodata as a Social Movement >>> More	<p>3. MISALIGNMENT. Ecodata leading. Momentum apparent in ecodata initiatives, but not apparent in data content (e.g. greenhouse gas emissions keep rising, the human resource footprint keeps expanding). Action tends to be mandated in response to statistical tests rather than driven by cultural values.</p>	<p>4. ALIGNMENT in a positive direction for the environment. Ecodata initiatives and ecologies in tune, as shown by a growing interconnected body of ecology-related R&D and a recovering planetary system (e.g. falling GHG emissions, falling resource footprints).</p>
	<p>1. ALIGNMENT in an adverse direction for the environment. Stalemate, resource intensity continues unchecked. Ecodata is a dysfunctional ecosystem, unconnected to other ecosystems. Internal purpose of intentionally ecoprotective initiatives may be subverted.</p>	<p>2. MISALIGNMENT. Efforts to protect the environment are visible, but the body of ecodata is trailing because it is neither developing nor shared. Positive momentum in the cultural context is potentially at risk due to lack of feedback in the form of confirmation of the efficacy or otherwise of such initiatives.</p>

Less <<< Momentum in Ecoawareness in the Broader Context >>> More

Definitions of realized efficacy might require evidence of physical change: falling CO₂ emissions and concentrations, a significant reverse of the fall in water levels content in key aquifers, a better balance in nutrition, decisions by the governments and the oil industry not to drill in sensitive areas such as the Arctic taken on the basis of ethics rather than what is made possible by melting sea-ice, or indeed decisions by arts organisations not to accept funding from fossil fuel industries in response to audience reactions. Potential efficacy might have quite a broad range of definitions in the context of an ecological approach. It could involve a change in thinking not yet materially reflected in physical evidence such as carbon emissions, or a successful linkage made in the context of the simple feedback loop in Figure 1.05 (p. 40). The most successful initiatives might produce a positive spillover in the form of

greater awareness of the environment in general. The catch is that most data can be used to construct almost any narrative – thus ecodata applied at point A could also be used in the context of regulatory frameworks to perpetuate (rather than push against) the resource-hungry social systems that drive environmental degradation at human hands. This is shown in the bottom half of Figure 1.06 (p. 42), which depicts inefficacy in the presence of the nature/culture divide.

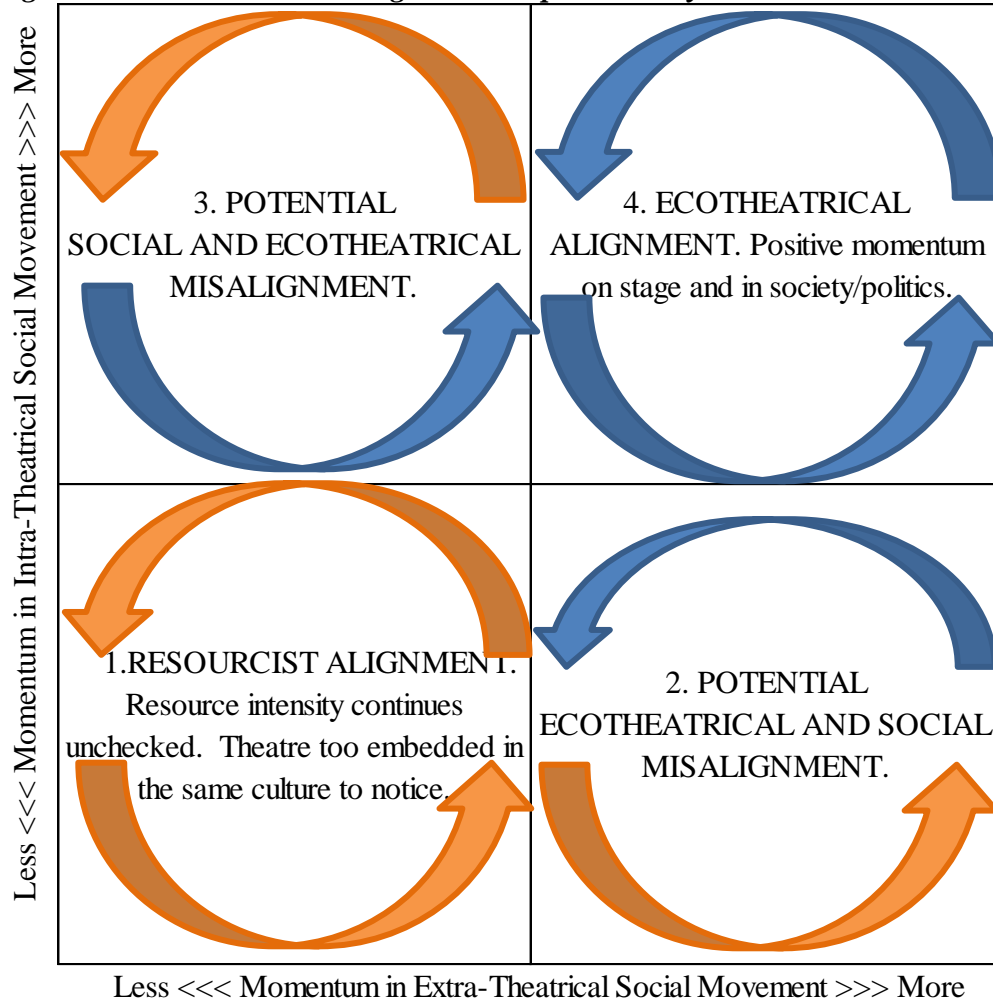
Figure 1.06 can also be described in ecological terms. Quadrants One and Four potentially depict the runaway spirals described in ecosystem science as positive feedback loops, one helping and the other hurting planetary ecosystems. Effective ecodata initiatives belong in quadrant four. Ineffective ecodata initiatives could thus be supportive of the existing (ecologically dysfunctional) status quo or, worse, could set up vicious circles exacerbating the problem (Quadrant One). The potential efficacy of some ecodata initiatives might be undermined by feedback loops elsewhere in a broader context lacking in ecoawareness, as in Quadrant Three. A need for effective initiatives in an ecoaware context is indicated in the conditions shown in Quadrant Two.

The idea of alignment discussed above is also likely to be helpful in the context of discussions of the efficacy (or otherwise) of ecotheatrical productions such as *The Skriker* or the *Arcola Godot*. Figure 1.07 (p. 44), which is also an extension of the alignment map set out in Figure 0.02 (p. 18), depicts four scenarios. Quadrant Four represents the virtuous circle discussed above. Quadrant One describes the opposite, thus, conditions in which an environmentally damaging vicious circle is at work. In ecological parlance, this would also be described (potentially confusingly) as a positive feedback loop, in this case implying an acceleration in the wrong direction for the environment. In Quadrants Two and Three, society and ecotheatre are depicted as driving in the opposite direction to each other. Which will prevail depends on the relative power of each one relative to the other, in the specific context in which the relevant theatrical event is situated. With regard to apolitical productions (Quadrants One and Two), it is worth pointing out that although theatre is first and foremost entertainment,⁵⁶ its power to engage the spectator's rapt attention gives it potential power to be transformative even when this

⁵⁶ John Willett, ed. and trans., 'A Short Organum for the Theatre', in *Brecht on Theatre* (Frankfurt: Suhrkamp Verlag, 1957; London: Methuen, 1964, 1987), pp. 179-205 (p. 180).

looks unlikely. Moreover (following Brechtian thinking), theatre that does not appear to be ecopolitical with intent may simply be in tune with the prevailing political landscape: ‘for art to be “unpolitical” means only to ally itself with the “ruling” group’.⁵⁷

Figure 1.07: Ecotheatrical Alignment Map and Ecosystem Feedback



Thinking in terms of the power structures likely to be in play in political contexts, maintenance of the status quo might (perversely) count as a form of theatrical efficacy for those who benefit from the status quo; whereas for those seeing problems with the status quo or wishing to change it, the impact of such problematically-aligned theatre may be better described as inefficacy or outright damage. In the context of this thesis, and in the ecoanthropocentric perspective

⁵⁷ Willett, p. 196.

represented in Figure 1.07, Quadrant Three is particularly important. This is the place where individual theatrical productions, supported by a wider theatrical movement, have considerable power to bring coherence to a chaotic civil society debate, should they succeed in connecting to a similar movement in the broader cultural context.

The sound-boarding of ideas made possible by the four simple scenarios shown in Figure 1.07 confirms the ambiguity surrounding the ecotheatrical efficacy (or otherwise) of productions such as the Arcola *Godot* in 2014 or *The Skriker* in 2015. However, it still leaves more questions than answers. It is incomplete until contextualized as shown below, in figure 1.08, which is an alternative way of looking at the same idea. This diagram is an example of the idea of ecosystems discussed in the Introduction, in depicting an ecosystem-like framework for ecoefficacy. In this diagram, the feedback loops coloured blue run counter to environmental degradation, and those that are coloured orange reinforce it. The potential for forces outside the control of the immediate initiative (be it ecodata or ecotheatre) is much clearer in this configuration even though it is still too much of a simplification to draw out all possible interconnections. The balance between the blue and orange feedback loops is an important determinant of ecoefficacy. It is shaped not just by the direction of travel in the relationships between them but also the balance of power between the drivers represented in the system nodes. Hence for example on the left-hand side of Figure 1.08, incumbent resource-heavy infrastructures might trump ecoinnovators, unless the innovators themselves collectively became a powerful enough force to shift society away from such systems. Thus, any hypothetical ecoinnovator might start out in Quadrant Three but end up in Quadrant One in Figure 1.07 (p. 44), in the presence of overwhelmingly strong societal feedback loops running against it.

Figure 1.08: Hypothetical Ecocultural Change Imagined as an Ecosystem

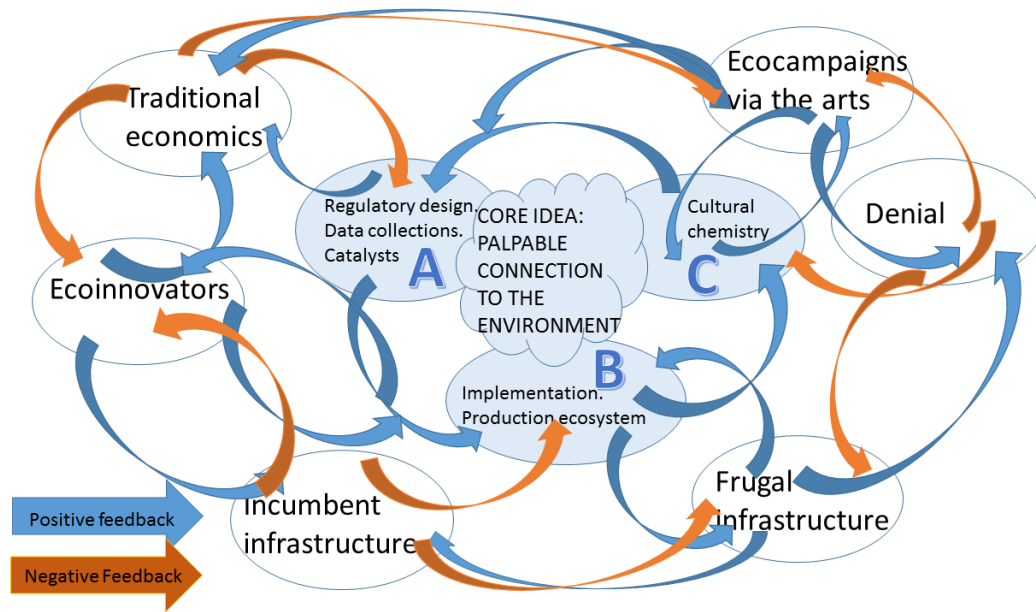


Figure 1.08 thus encapsulates the relationship between the problem of ‘denial’ raised by Kershaw, as cited at the opening of this chapter, and the need to find effective ways of transitioning to a better ecological alignment through performance as represented in ecodata, the arts or elsewhere. Clearer though this may be, it is still not a full picture. As will be explained below, the idea of positive and negative feedback loops is incorrectly presented in Figure 1.08, from an ecological perspective. A further step is needed, incorporating ideas typically used in climate science by the Intergovernmental Panel on Climate Change (IPCC). (See also Meadows, mentioned in the Introductory definitions). All feedback loops can potentially have double-edged effects depending on how they are connected to other such loops. This added layer of complexity delivers a more accurate picture of the relationship between denial, occlusion, nature/culture divides and intent, and how they shape the environmental crisis.

Ecomagnifiers, Ecostabilisers and Ecoefficacy

In the following paragraphs the potential for ecologies and ecosystems to self-magnify or stabilize is explained. This double-edged dynamic will shape the efficacy or otherwise of any initiative constructed as ecological with intent. Generalising, all ecosystems contain positive and negative feedback loops, and both can be constructive or destructive for the incumbent ecosystem they are part of. In ecological parlance, positive feedback loops are destabilising and act to move the

system to a new regime, such as higher average temperatures with runaway global warming. Negative feedback loops are stabilizing. They counter positive feedback to produce system oscillations, thereby preventing structural shifts. Sometimes this is desirable, as in the case of ecological initiatives intended to prevent environmental degradation by blocking the human systems that contribute to global warming. Sometimes it is not, when cultural shifts that might be protective of natural systems are counteracted. This is illustrated in the two redrawings of a diagram in the IPCC's Third Assessment Report, in Figures 1.09a and 1.09b.⁵⁸

Figure 1.09a: Simplified Diagram of an Ice-melt Feedback System, IPCC

[This figure, which was my own redrawing of an IPCC diagram, is not shown in order to respect copyright. It is however easily available online. The reader is referred to p. 456 in the PDF publication of the *Physical Science Basis* report of Working Group One, in the *Third Assessment Report* of the IPCC, as footnoted.]

⁵⁸ Intergovernmental Panel on Climate Change (IPCC), 'Section 7.5.2, Sea Ice', in *Third Assessment Report, Working Group I: The Scientific Basis* (2001), IPCC website, Figure 7.6 <<https://www.ipcc.ch/ipccreports/tar/index.htm456>>. Select the full report in *The Scientific Basis* and see p. 456.

In Section 7.5.2 of the *Physical Science Basis*, Figure 7.6 depicts two simplified feedback loops in the context of sea-ice, one acting to stabilise the system (as indicated by the minus sign in the circle), the other to move the system away from its current equilibrium (as indicated by the plus sign in the circle) in the direction of a warmer or colder climate, depending on what happens elsewhere in the system. The simple structure of the IPCC's idealized feedback loop can be adapted to other contexts. Let the terms be substituted as follows: for Sea Ice substitute Fossil Fuel Energy Culture; for Open Ocean, Energy R&D; for Evaporation, Energy Technology Ideas; for Low Clouds, Energy Economics; for the Albedo effect, the Incumbent Energy Infrastructure; and for Surface Temperature, Energy Innovation. This new version depicts social forces that could bring about a shift towards or away from a new relationship with energy in the form of a runaway warming of energy innovation (the plus sign in the circle), and other forces that dampen this process (the minus sign).

Figure 1.09b: By Analogy with Ice-melt (IPCC): Environmental and Social Feedback

[Diagram not shown for copyright reasons.]

Source: IPCC and author

This adaptation of the IPCC's sea-ice model was made in relation to Nordhaus's economic commentary in *The Climate Casino* with respect to the similar dynamic observed in global warming and innovation (thus, indirectly also markets):

From an economic point of view, fundamental inventions have the same basic characteristics as global warming. Their value spreads around all corners of the world. [...] If you have mastered the externalities of global warming, you have also understood the basic economics of innovation. The only difference is that the externalities of innovation are largely beneficial while those of global warming are largely harmful.⁵⁹

The most important node in Figure 1.09b (not shown but described) is the node in which Low Clouds are substituted for Energy Economics. As explained by Nordhaus, it is this node in the innovation ecosystem that cancels out the power of innovation as a shapeshifter, because the economics of energy innovation 'doubly discourage profit-oriented R&D' in new energy technologies by not rewarding the inventor. Thus, as explained in climate science terms, when innovation increases, returns are leached away and the incentive is to remain with incumbent energy systems.⁶⁰ This serves to dampen progress towards low-carbon energy that might be initiated by a cultural change in the form of higher demand for low carbon energy. Figure (as described) 1.09b can be seen as a representation of the left-hand side of figure 1.08 on p. 46 (depicting markets, innovation and incumbent infrastructure). It thus confirms the magnitude of the challenge facing organisations in the fields of ecodata and ecotheatre.

Nature and Culture: Drivers of Growth and Self-Destruction

From an ecoanthropocentric perspective, nature and culture can be said to have permitted the growth (however measured) of humans as a species. The substantial species footprint depicted in the ecodata charts is a product of ecologies, biology and runaway feedback loops. From either of the perspectives on each side of the divide – nature or culture – *Homo sapiens* could be described as successful, so far, in a narrowly defined sense: Paul Ehrlich's gloomy 1968 predictions of a human

⁵⁹ Nordhaus, *The Climate Casino: Risk, Uncertainty and Economics for a Warming World* (New Haven: Yale University Press, 2013), p. 285.

⁶⁰ Nordhaus describes two economic externalities: returns to investment in innovation are externalized to society at large reducing the incentive for private investment in a profit-oriented regime; and the price of CO₂ emissions is externalized, which also suppresses returns to innovation.

population crash have not (yet) come to pass.⁶¹ However if the ecodata depicted in the charts above continue to evolve in a similar direction, it is hard to imagine that human beings will avoid the population cycle many other earthly species follow, thus the success described above is illusory considering the lack of resilience embedded in the self-reinforcing feedback loop of unconstrained growth. On the other hand, the very existence of the substantial ecoanthropocentric data ecosystem (only touched upon in the three examples discussed above) hints at the possibility of change in the human resource culture. As discussed above, the success of different species on the planet rests on their ability to adapt to available resources. The fact that such data is being gathered suggests at least some awareness of an urgent need to adapt in order to avoid a number of extinction events, human and non-human. Yet, most of the data series shown continue to go in the wrong direction.

A possible explanation is that the phenomenological connection between ecodata and human behaviour I argue to be necessary for such data to have an impact on culture has not been sufficiently made for an effective cultural change to come about. In short, the feedback loops of Figures 1.05 (p. 40) and 1.08 (p. 46) do not seem to be working to positive effect for the environment, in the context of ecodata. Potential efficacy may describe its achievement; realized efficacy does not. Jane Bennett provides a deeply ironic potential explanation. She suggests that ‘the image of dead or thoroughly instrumentalised matter feeds human hubris and our earth-destroying fantasies of conquest and consumption.’⁶² If the term ‘instrumentalised’ is read in two possible senses – matter only recognized for what it can do for human beings, and matter measured in terms of pre-specified effects – ecodata designed to help mitigate environmental damage could end up having the opposite effect. Indeed, phrases such as ‘feeds human hubris’ hint at an adversely directed phenomenological feedback loop. The only hope, in the context of such an argument, is that this is only one side of the performative feedback loops potentially at work in the system of ecodata partially described above. The question is whether the ‘hubris’ described by Bennett might potentially be offset by another feedback

⁶¹ Ehrlich, *The Population Bomb* (New York: Ballantine Books, 1968). See also Paul R. Ehrlich and Anne H. Ehrlich, ‘The Population Bomb Revisited’, *Electronic Journal of Sustainable Development*, 1 (3) (2009), 63-71.

⁶² Bennett, 2010, loc. 89.

loop somewhere in the system, sufficiently to bring about the cultural change needed to achieve Kershaw's more 'responsible' ecological balance.

Is the Nature/Culture Divide Too Entrenched for Change to be Possible?

If cultural change is not possible, the very idea of proactively and coherently seeking ways to bring about a shift to a new environment-aware way of life is futile.

However, the possibility that cultural change might be a possibility is prompted by human history. Cultural shifts (albeit not of the kind seen as constructive in this thesis) are visible in the interactive map of Aurélien Saussay and in the data of the Global Footprint Network. The issue is not the possibility of change itself but the direction of change. Whether change of the right direction and quality can be achieved from the perspective of the planet and the humans residing in its biosphere may depend on how firmly set the current direction of travel is. If it is relatively recent in the scheme of things, captured (for example) in Saussay's 1750-2010 time-span of Figure 1.04 (p. 39), then change may not be impossible.

Some seem to believe, indeed, that the Enlightenment – the important period of history running through much of the eighteenth century in the UK and Europe – explains a great deal about modern-day human relationships with the environment. As described by Max Horkheimer and Theodor W. Adorno in the well-known *Dialectic of the Enlightenment*:

Enlightenment's program was the disenchantment of the world. It wanted to dispel myths, to overthrow fantasy with knowledge. Bacon, 'the father of experimental philosophy'⁶³ brought these motifs together. He despised the exponents of tradition, who substituted belief for knowledge and were as unwilling to doubt as they were reckless in supplying answers. All this, he said, stood in the way of the 'happy match between the mind of man and the nature of things', with the result that humanity was unable to use its knowledge for the betterment of its condition.⁶⁴

Spelling this out further, Baconian science is about no longer being in the grip of natural forces but using scientific knowledge to control nature: this is the opposite of

⁶³ As footnoted in *Dialectic*: Voltaire, *Lettres Philosophiques*, ed. by F. A. Taylor (London: Publisher not named, 1992), p. 36.

⁶⁴ Horkheimer and Adorno, *Dialectic of the Enlightenment: Philosophical Fragments*, ed. by Gunzelin Schmid Noerr, trans. by Edmund Jephcott from vol. 5 of Max Horkheimer, *Gesammelte Schriften: Dialektik der Aufklärung und Schriften 1940-50* (Frankfurt: S. Fischer Verlag, 1987; Stanford CA: Stanford University Press, 2002), loc. 178.

ecoanthropocentrism. Lynn White Jr., writing in an ecocritical context, also describes scientists as positioning nature as an adversary to be conquered from the middle of the nineteenth century onwards:

The emergence in widespread practice of the Baconian creed that scientific knowledge means technological power over nature can scarcely be dated before about 1850 [...]. Its acceptance as a normal pattern of action may mark the greatest event in human history since the invention of agriculture, and perhaps in nonhuman terrestrial history as well.⁶⁵

However, if environmental degradation is interpreted as evidence of a nature/culture divide, I note that there appear to be several salutary examples of environmental degradation that predate the Enlightenment, suggesting a much longer-term trajectory. Moore for example suggests that the central European mining boom in 1450 was a key turning point,⁶⁶ and historian Lisa Jardine describes the consumer and scientific revolutions as having evolved together in the fifteenth and early sixteenth centuries in the UK and Western Europe.⁶⁷ Jared Diamond, exploring ways in which civilisations ‘choose to fail or survive’, describes societies that had not gone through Western-style scientific or consumer revolutions, and that collapsed between 1100 and 1500. Environmental challenges and ‘cultural responses’ are described by Diamond as having ‘contributed to these collapses and transitions’. Each collapse was different to the others in some ways, thus, other factors were also at work. However:

[All] were ultimately due to the same fundamental challenge: people living in fragile and difficult environments, adopting solutions that were brilliantly successful and understandable “in the short run”, but that failed or else created fatal problems in the long run, when people became confronted with external environmental changes or human-caused environmental changes that societies without written histories and without archaeologists could not have anticipated.’⁶⁸

⁶⁵ White Jr., ‘The Historical Roots of Our Ecological Crisis’, in Glotfelty and Fromm, eds. 1996, pp. 3-14 (pp. 4-5).

⁶⁶ Moore, 2015, loc. 2747.

⁶⁷ Jardine, *Ingenious Pursuits: Building the Scientific Revolution* (London: Little, Brown, 1999).

⁶⁸ Diamond, *Collapse: How Societies Choose to Fail or Survive* (London: Allen Lane, 2005), pp. 154-155.

The flaw in such arguments, as suggested above, is that Diamond's analysis is a typical post-Enlightenment analysis.⁶⁹ With twenty-twenty hindsight he suggests that communities destroyed themselves by their own actions because they could not have had the foresight required to avert the disaster. However, if resource over-exploitation is a consequence of ecologies and feedback loops, this is unlikely to be a post Enlightenment problem any more than hubris in the context of imbalances of power. For Easter Island, key factors contributing to collapse included 'human environmental impacts' as well as 'competition between clans and chiefs driving the erection of bigger statues requiring more wood, rope and food.'⁷⁰ From the perspective presented by Diamond, the problem was an environmentally and socially destructive excess of competition made visible (but not produced) by a technology that was new and astonishing in its day. Such a view suggests that the modern-day environmental crisis may not (contrary to appearances) be a consequence of the modern economic systems in which corporations, seeking to maximize profit, externalize environmental costs. Rather, this behaviour may be an aspect of human psychology (thus ecology and biology) that happens to be reflected in modern economic systems but can also be detected trans-historically. This can be interpreted as symptomatic of the presence of the environmental shapeshifter – possibly invisible but certainly not blocked – in social structures and behaviour. Thus, the nexus of factors driving the adverse effects of hubris could also be described as a runaway feedback loop, and the effects of such feedback loops in the overall ecosystem are more likely to be noticed once they become large enough to produce imbalances or indeed to trigger a system 'blowback'.⁷¹

Others also see the beginnings of the nature/culture divide as identifiable well before (and during) the early modern period, also suggesting a problem intrinsic to human society rather than a product of any way of life or state of knowledge at given

⁶⁹ Thanks to Pablo Mukherjee for alerting me to the importance of this point.

⁷⁰ Diamond, pp. 118-9.

⁷¹ Moore, 2015, loc. 2252. He defines 'blowback' as anything from 'human-centred revolts to extra-human resistance'.

times. Cless cites Max Oelschlaeger,⁷² J. Donald Hughes⁷³ and Clive Ponting⁷⁴ as following the nature/culture divide back to the earliest developments in agriculture and consequent rise of cities in some regions between 10,000 and 3,000 BC. As described by Cless:

The rift gets carried forward as a larger antagonism of environment with the new science, industry and religion during the late Middle Ages [...]. Thereafter Marlowe and Shakespeare explore the nature/culture binary as they negotiate the medieval/modern tradition, I argue; they are on the dividing line as mainly animistic nature gives way to scientific objectification and capitalistic commodification.⁷⁵

In this framing the ‘nature/culture binary’ is, once again, not a product of specific economic or political imperatives, (the ‘rift gets carried forward’) but an intrinsic aspect of human behaviour that is a product of ecology and biology, revealed and magnified by certain conditions such as widespread development of scientific knowledge that marked the Enlightenment.

History interpreted from an ecological perspective suggests that the environmental crisis is driven by the magnification of the (pre-existing) nature/culture divide by technology. Technological developments thus become feedback loops in the broader system – they are, as Kershaw might say ‘performed by’ their environment.⁷⁶ Ecological imbalances propelling the environmental crisis forwards must thus be resolved from within. At first sight, the possibility that the nature/culture divide appeared well before the beginning of any of the ecodata discussed in Figures 1.01 to 1.04 (pp. 35-39) seems deeply pessimistic, for it may be too entrenched for change to be possible. However, it is unlikely that living systems – ecologies, ecosystems and feedback loops – can ever be described as entrenched for two reasons. First, living systems are constantly shifting. Secondly, the perspective described above describes one small piece of the broader system, thus the possibility of effects from other larger feedback loops in the system is ever

⁷² Oelschlaeger, *The Idea of Wilderness* (New Haven: Yale University Press, 1991).

⁷³ Hughes, *Environmental Problems of the Greeks and Romans: Ecology in the Ancient Mediterranean*, 2nd edn. (John Hopkins University Press, 1994, 2014).

⁷⁴ Ponting, *A New Green History of the World: The Environment and the Collapse of Great Civilizations* (London: Vintage, 2007).

⁷⁵ Cless, 2010, pp. 1-2.

⁷⁶ Kershaw, 2015 [2013].

present. I therefore return to two of the key arguments of this chapter, illustrated by Figure 1.05 (p. 40): first, for cultural change in the desired direction for the environment to be possible, in the context of any given aspect of human society, the environment itself (rather than power-seeking or profit-making) must be at the core. Secondly, the ecologies driving all human systems need to shape human perceptions of them – in short, the environment as a shapeshifter in all so-called human affairs must be embedded in so-called human thinking as a constant ecoanthropocentric presence. This potentially resolves the quandary I experienced with respect to the potential separation of the operational and aesthetic feedback loops in the Arcola *Godot*.

The Theatrical Event as an Ecosystem

In this thesis, I focus throughout on an important theoretical concept – the theatrical event. In the context of the twin ideas of ecotheatre and theatre ecocriticism it is a powerful idea. Most obviously, the idea of the theatrical event as an ecosystem is consistent with Kershaw's idea of focusing on 'the *conditions* of performance that are *most likely* to produce an efficacious result', as well as on specific 'theatrical movements in relation to local and national cultural change'.⁷⁷ I stress that the importance of context as a determinant of theatrical efficacy is not a new idea at the time of writing this thesis.⁷⁸ Since Kershaw, many others working on different theatrical perspectives have emphasized the importance of the broader context, such as Marco de Marinis,⁷⁹ Susan Bennett,⁸⁰ Sauter,⁸¹ Cremona, Eversmann, Van Maanen,⁸² and Tulloch.⁸³ Bennett, exploring the 'cultural phenomenon' of theatre audiences, comments on the:

[...] necessity to view the theatrical event beyond its immediate conditions and to foreground its social constitution. The description of an individual

⁷⁷ Kershaw, 1992, p. 3.

⁷⁸ Kershaw conceived the idea in the mid 1980s, consolidated it in his 1991 thesis and then went on to write *The Politics of Performance*.

⁷⁹ De Marinis, *The Semiotics of Performance*, trans. by Aine O'Healy (Bloomington: Indiana University Press, 1993).

⁸⁰ Bennett, *Theatre Audiences: A Theory of Production and Reception* (London: Routledge, 1997, repr. 2003).

⁸¹ Sauter, *The Theatrical Event: Dynamics of Performance and Perception* (Iowa City: University of Iowa Press, 2000).

⁸² See Cremona, et. al, 2004.

⁸³ Tulloch, *Shakespeare and Chekhov in Production and Reception: Theatrical Events and their Audiences* (Iowa City: University of Iowa Press, 2005).

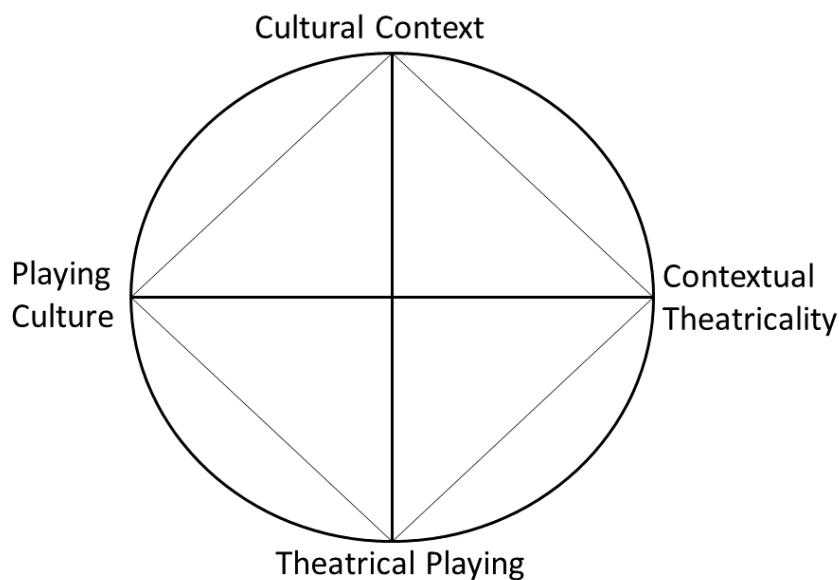
response to a particular production may not be possible or, indeed, even desirable. But because of that individual's participation in a given culture and the importance of his/her culturally constituted horizon of expectations, and selection of a particular social event, it is important to reposition the study of drama to reflect this.⁸⁴

This paragraph chimes with de Marinis's discussion of intertextuality, where:

The *performance context* is constituted by the conditions of reception and production of the performance text and [...] [t]he *cultural context* is made up of the sum of synchronous cultural texts, which are both theatrical [...] and extra-theatrical.⁸⁵

Both quotations can be seen to connect directly to Sauter's Diamond Model, which breaks the theatrical event down into four components (further explored in Chapter Three): cultural context, playing culture, contextual theatricality and theatrical playing, as shown in Figure 1.10 below.⁸⁶

Figure 1.10: The Theatrical Event as a System – The Diamond Model



Source: Sauter

⁸⁴ Bennett, 1997, p. 1, p. 211.

⁸⁵ De Marinis, p. 81. Italics as in the text.

⁸⁶ Sauter, 2004, p. 12.

As a means of describing the theatrical event as a complex interconnected system encompassing (and going beyond) what is happening on stage, the Diamond Model was developed over many years by Sauter and the members of the Theatrical Events Working Group of the International Federation of Theatre Research (IFTR). In brief, it organizes and simplifies the potentially chaotic system of interactions at work in a typical theatrical event. Theatrical playing denotes what is happening in the performance; the playing culture describes the performance culture of the world outside the theatre; the cultural context includes everything in the societies or communities surrounding the event; and contextual theatricality describes the culture and practices of the theatre company and the sector it operates within. In this model, what is happening on stage is shaped by, and potentially also shapes, the cultural context. There may also be a complex dynamic running between the theatre company's contextual theatricality and what happens on stage on the one hand, and the cultural context, and the playing culture prevailing in the outside world on the other. In other words, although the environment appears to be occluded in the Diamond Model because it is not overtly stated at any of the nodes, it turns out to be visible in the shape of the model itself. Contrary to appearances, the Diamond Model is an ecosystem – an idea that is less surprising than it seems on the basis that theatrical events are also ecosystems. To explore this point further, I return to the work of Kershaw – this time, to the Meadow Meanders.

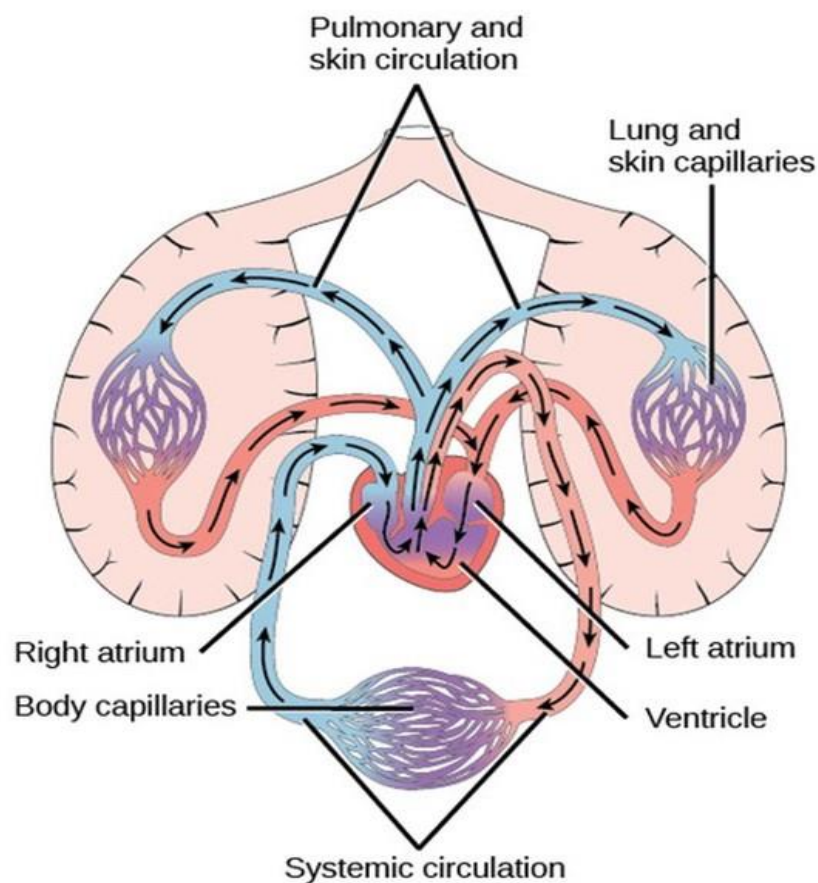
Ecosystems in Microcosm as a Lived Experience

Those who enter a Meadow Meander and follow its pathways are asked to follow two simple rules.⁸⁷ Should they do this correctly, they may discover the open secret of the ecological aspect of Earth drawn in the pathways of the Meander as a puzzle. A birds' eye view would disclose the answer immediately. From the ground, it can only be guessed at, but important clues to its identity lie in the rules themselves. At crossroads in the maze, the only direction of travel is straight ahead. At T-junctions, the meanderer can choose between left or right. Walking round the fragrant, softly

⁸⁷ 'Meadow Meanders are simple maze-like pathways modelled on major ecological aspects of Earth in meadows, parks, city squares [...] and other open spaces. They combine land art, nature trail, gallery display and immersive performance to produce dynamic and enlivening experience of 'glocal' ecosystem processes.' See Institute for Advanced Teaching and Learning (IATL). Meadow Meander Pedagogy Project: Developing a 'Living Laboratory' for Warwick Campus <www.warwick.ac.uk/fac/cross_fac/iatl/>.

sonic path way in the summer of 2014 on the campus of Warwick University, I stared down and drank in textures and patterns, looking for subtle signposts – mostly crushed stems and ears of grass pointing the way to go. I ignored distractions – buzzing insects, a ladybird scrambling out of the way, other meanderers in my peripheral vision, a fox peeking through the fence, two girls taking a break to plait their hair and transparent boxes of seeds standing in for animal life from other continents.⁸⁸ Gradually, I recognised the secret as the rhythm of blood coursing round a living body, carrying oxygen and unexpected human passengers with it.

Figure 1.11: Ecological Forms in Meanders and Living Systems – Amphibians



Source: 'Simple Circulatory Systems', in *Types of Circulatory Systems in Animals*, on <Boundless.com, www.boundless.com/biology/textbooks/boundless-biology-textbook/>

⁸⁸ Had I filled out a feedback form about this experience, I might have described my resistance to the boxes of seeds, or not mentioned them at all. I will return to this point in Chapter Six.

This was not the ecological open secret enclosed in the envelope handed out to participants (which I shall not disclose). Yet, at the same time, it was the same thing.

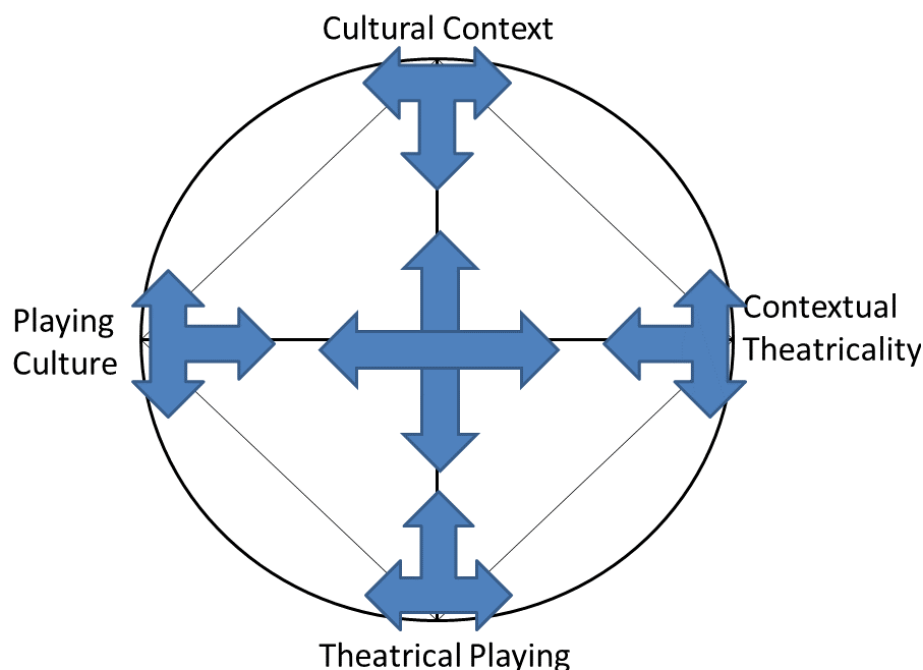
Returning to the definitions in the introduction, the Meadow Meanders as I experienced them, and as they are described in Kershaw's writings, are a good example of phenomenologically-experienced theatrical ecosystems. They are shapeshifters for their participants (and the participants are also shapeshifters of the planetary system they depict in a very physical sense). They are ecoanthropocentric in conception and potentially also in their effects on those who travel through them, which potentially go far beyond whether or not they solved the puzzle. I did not do so, and yet also in another way did, in an amusing instance of ecoefficacy on the oblique. The open secret revealed to me by my Meadow Meander experience was the environment as a shapeshifter, visible in the unmistakable ecological form of flows and currents in macrocosm and microcosm, in every living system on the planet. This is illustrated in Figure 1.11 which shows a simplified amphibian circulation system. As the arrows drawn on the diagram for pedagogical purposes show, blood circulation systems follow the rules governing a Meadow Meander.

In circulation systems, fluids or other organic matter flowing through them shape and are shaped by the limits and pressures of the pathways they flow through. Cross-roads appear when there is no connection between the flows because they are moving at different levels in the system – were they connected, they would be reshaped by the fluids flowing through them, just as meandering watercourses are reshaped by water and gravity in combination. T-junctions or derivative forms (such as the Y-junction above the heart in the amphibian circulation system in Figure 1.11) arise when flows are connected. It is no accident that biological systems such as circulation systems and Meanders also seem to chime with ideas like Nordhaus's closed economic system and Sauter's Diamond Model, and vice versa. As a product of the sciences such diagrams are post-Enlightenment cultural artefacts thus a product of the culture that needs to change. They however are also undeniably a product of the same ecologies and feedback loops; thus, they are also rooted in much earlier, largely unconscious, beginnings. The environmental shapeshifter is palpably embedded in them, notwithstanding fundamental differences.

Experimentally Considering the Diamond Model as a Meander

The Diamond Model is about connections. Simple as it appears, it is no back of the envelope diagram drawn in a few minutes. As discussed in further detail in Chapter Three, ideas rooted in fields as disparate as phenomenology, psychology and semiotics informed its development, and many people were involved in discussions of the Theatrical Event as a concept over several years. Connecting this to the Meadow Meander experience described above, I have added arrows that describe the direction of travel between the four nodes of the model. They can be recognized as corresponding to the Meadow Meander rules – rules that were not set by Kershaw, Meander Designer, but by the ecologies the ecosystem puzzle depicted.

Figure 1.12: The Diamond Model Experimentally Considered as a Meander



Source: Sauter, Kershaw and Author

The rules described by the arrows superimposed upon it are not something I have imposed on the system. They simply reflect the most efficient pathways between the nodes: The Diamond Model shaped the rules as much as ecologies, ecosystems and biology shaped the Diamond Model. Thus, closing the circle, ecologies and ecosystems also shaped the rules I describe. As would be expected, as a theatrical event itself, any Meadow Meander could also be described by means of the Diamond

Model. In brief, its contextual theatricality is to be embedded in the natural environment, to be minimally invasive of it, and to require very few resources other than human energy in its operation; it connects to ecopolitics in the cultural context through the open secret configured within it; the playing culture it is situated in connects to site-specific theatre, interactive theatre and the arts more generally; the theatrical playing itself – the meandering (which is both production and reception) performed by participants – is shaped by the overall system.

The fact that the forces travelling between the several nodes in Sauter's model of a Theatrical Event can be seen to follow some of the real-life ecosystem rules that govern Kershaw's concept of the Meander is a critical point for the discussion of environmental occlusion revisited several times in this thesis. How this pattern happened to become visible (in hindsight, in the context of this thesis) in the Diamond Model is explained – I believe – by the way the Diamond Model was formed over several years by several people in the IFTR Theatrical Events Working Group experimenting with different pathways through the system of many theatrical events until a beaten theoretical track was formed. Meadow Meanders are mind maps – and many mind maps are mental Meanders. Ecological ideas are present even where they do not seem to be, and in the Diamond Model they are hidden along with many other embedded ideas, until revealed by an ecological perspective such as that described above. However, what happened when I attempted to harness ecological ideas overtly to the Diamond Model, thereby applying the model as an ecosystem in the holistic sense described by Meadows (see Definitions), constrained the extent to which I was able to leverage the model in this thesis.

The Diamond Model and its Role in the Ecosystem of this Thesis

The Diamond Model reappears in several of the empirical chapters because I found it useful as an analytical framework around which to organise different aspects of live theatrical performance. It helped me to structure and control my materials. It also helped me to identify which aspect of the theatrical ecosystem was dominant in shaping how effective or otherwise the several productions discussed were, or were not, as ecotheatre. Hence, in Chapter Three it is applied in situations in which an overt divide runs between practical 'green' theatre operations, e.g. conserving energy, and the aesthetics of on-stage performance. In Chapter Four, which looks at dearth plays, the contextual theatricality of theatre companies themselves, and what

happened when the company was transported to a different cultural context, have the greatest bearing on ecotheatrical outcomes. In Chapter Six, a complete reshaping of a cycling company's theatrical ecosystem, thanks to a strongly developed context of environmental theatricality, explains the troupe's ecoefficacy. In Chapter Seven, which looks at the 1994 and 2015 critical reactions to *The Skriker*, a shift in the significance of climate change in the cultural context across two decades seems to be an important factor in explaining the change in the play's reception.

Notwithstanding how useful I have found the model as a means of organising ideas in the complex systems of theatrical performances, and the added complexities introduced by the inseparability of social and cultural systems from environmental ecosystems, its potential limitations must be acknowledged. A significant point in this discussion of occluded concepts is that when I initially discussed the Diamond Model as an ecosystem with Sauter and others in the Theatrical Events Working Group of the IFTR Congress held in Warwick University in 2014, the idea encountered resistance. When I experimented with the different nodes of the model, introducing ideas such as 'environmental theatricality', 'environmental culture' and 'environmental context' as additional or substitute nodes in the system, sketching out a 'green star' eight-point model by way of illustration, the idea was roundly rejected by longstanding members of the Working Group. The nature/culture divide was palpably present as a shapeshifter in the discussion. This is an important pointer to a fissure running through the parallel drawn above, between overtly ecologically-based systems on the one hand, and a culturally-driven ecosystem on the other.

Hence, I now return to the introductory definitions in order to explore this fissure, and clarify the role played by the Diamond Model in the thesis. If the closed, linear structure of the model itself (Figure 1.10, p. 56) is considered in the context of ecosystems as controlling environments containing a complex system of living organisms, it is clear that the Diamond Model is not an ecosystem in the same sense as the living features I have described in the Meadow Meanders or the amphibian diagram (Figure 1.11, p. 58), even if ecological processes can be detected in all three. Unlike the Meadow Meanders, which are able to adapt to the evolving shape of the ecological formations they mimic, as well as to accommodate differences in the controlling context in which they are engineered by human hands, the Diamond Model cannot be described as a shapeshifter. As I found out when I

explored possible adaptations, it is a static model controlled by the cultural conditions prevailing within the Theatrical Events Working Group. Still, ecological ideas can usefully run through the model in various ways, as I believe they do in this thesis. However, as its empirical chapters combine to suggest, ecotheatrical efficacy tends to be encountered when live performance breaks away from hardwired conventions, thereby going beyond the limitations they impose.

Moving on to my third term: from a ‘ecoanthropocentric’ perspective, the flows of matter, energy and ideas that shaped the Diamond Model are patent. However, the shape of the model as drawn (even with the addition of the arrows, designed to draw out ecosystemic properties) is also reminiscent of traditional models in economics, which assume the economy to be closed to the environment. Whereas Meadow Meanders are readily described as ecoanthropocentric, the 2014 Working Group debate implied that the Diamond Model is not so readily positioned. In relation to my fourth term, the question is whether the Diamond Model is ecotheatrically effective, or not. The answer is suggested by the point that the environmental ecosystems underpinning the model are (on the evidence of the abovementioned 2014 workshop discussion) invisible to the inventors of the model. People experiencing a Meadow Meander, in contrast, are palpably aware that they cannot discriminate between the living fusion of nature and culture that they know they are embedded in.

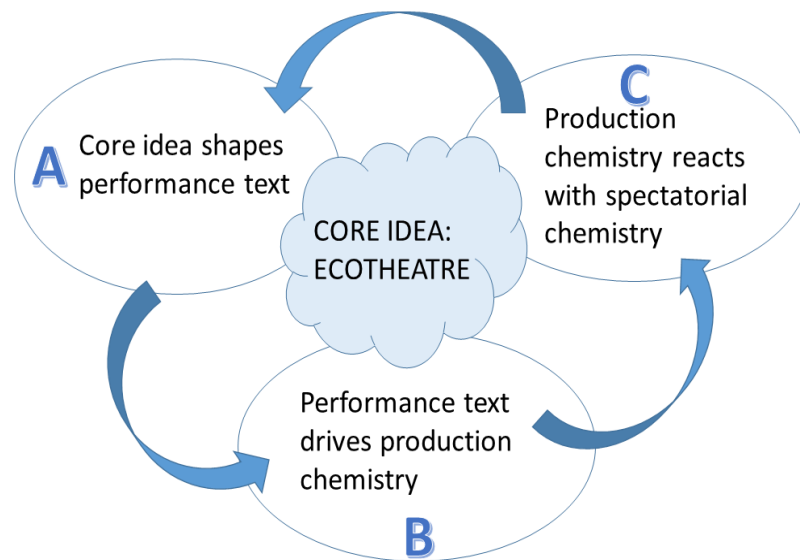
Overall, then, the Diamond Model, as used in this thesis, is an organising skeleton for critical discussions of theatre and ecotheatre, and thus is best described as scenery rather than shapeshifter.

The Theatrical Event, Theatrical Efficacy and Ecotheatrical Feedback Loops

Whether the natural environment on stage is mere scenery, or, conversely, important enough in the context of theatrical events to mould production and reception in ecologically meaningful ways, could be a measure of their potential efficacy. The problem with this idea is that embeddedness may result in seeming occlusion, whether because the natural environment is so much a part of the event that it is invisible to all concerned, or because it is observed but not overtly remarked upon because it is a fact of life. Thus, a potentially (or actually) ecotheatrically effective event could be unfairly deemed to be its opposite, and vice versa.

The key term in the above discussion is the theatrical event. If theatrical performances are conceptualised as theatrical events, the idea of the natural environment as mere scenery is immediately open to challenge. The concept of the theatrical event brings together the ‘conditions of performance’ that shape theatrical efficacy, on a broad ‘canvas for analysis’ that goes beyond what is on stage to encompass ‘theatrical movements in relation to local and natural cultural change’,⁸⁹ as well as the ecosystem as a fact of life, inseparable from the idea of the tree painted on the back-cloth. This point connects readily to Figures 1.05 (p. 40) and 1.08 (p. 46), which describe the process potentially followed by cultural change as a response to an initial catalyst. I note that I am not the first to think in terms of theatrical ecologies and feedback loops. Others who have done so include Bonnie Marranca,⁹⁰ Kershaw,⁹¹ and Lavery, to name just three. Each applies the idea in different ways. In this work, I hope to apply the basic idea below as a means of helping to identify feedback loops that might potentially change the system in constructive ways, hopefully without ‘chop[ping] off consideration of other loops of the loop structure’.⁹²

Figure 1.13: Ecotheatrical Feedback Loop



⁸⁹ Kershaw, 1992, p. 3.

⁹⁰ Marranca, *Ecologies of Theatre* (Baltimore: The John Hopkins University Press, 1996).

⁹¹ Kershaw, 2007.

⁹² Bateson (1972, 1990), p. 492.

The question shaping the methodologies developed in the later chapters of this thesis was how it might be possible to identify ecotheatrical efficacy – actual or potential – when it may be invisible to the critical eye precisely because of the embeddedness described above. This section of this chapter pulls together the idea that was, rather like an ecosystem feedback loop, shaped by the empirical work in this thesis, which is that measurement projects in the arts must be creative, rooted in the ecosystem of ideas that gave rise to such works in the beginning. Creative measurement makes use of mind maps in the context of empirical data to understand what is being measured. It accepts that, sometimes, the only available data is hidden between the lines, implicit rather than explicit, thus only seemingly absent. As an approach to qualitative research, this is not a new idea. Researchers considering similarly circular problems developed an approach known as grounded theory. As Corbin and Strauss explain, two important features characterize qualitative research that uses this approach:

First, the concepts out of which the theory is constructed are derived from data collected during the research process and not chosen *prior* to beginning the research. [...] Second, in grounded theory, research analysis and data collection are interrelated. After initial data are collected, the researcher analyzes that data, and the concepts derived from the analysis form the basis for the subsequent data collection. Data collection and analysis continue in an ongoing cycle throughout the research process.⁹³

In this thesis, I did not apply this approach to any individual project in isolation. Rather, the idea of the shapeshifter on stage as an aspect of a system of ecological processes formed through an iterative process of discovery. Similarities between research methodologies applied in this thesis and grounded theory thus emerged as the project developed. Grounded Theory as described by Corbin and Strauss is a shapeshifter in the sense described in the Introduction. As a research approach, it is thus potentially compatible with ecoanthropocentric perspectives.

Mind Maps, Measurement and Ecosystems

In the context of research approaches seeking to use data to assess efficacy, circularity tends to be seen as potentially invalidating results. In a chance

⁹³ Corbin and Strauss, 2015, pp. 6-7.

conversation in 2015 Kershaw suggested to me that a potential solution to the problem of measurement model validity for theatre might be to identify cold audiences, defined as groups of spectators who would arrive at the show unaware of the environmental dimension. On the basis that the cultural context is embedded in the environment and the environment is embedded in the cultural context, a truly cold audience could be hard to find in the presence of initiatives such as the ecodata described earlier. However, in the event, I did not need to test out his suggested jury-service model (in which the theatre company would ask spectators to arrive at the theatre without having seen any information about the production beforehand), because of the perspective described in the introduction to this thesis. The idea of circular ecologies and ecosystems driving momentum, in the form of runaway feedback loops constructed to run with the grain of the environment, is fundamental to the efficacy of live theatre as a shapeshifter. Thus, warm audiences may be of far more interest than cold ones, as evidence of ecotheatrical efficacy.⁹⁴ Indeed, the production team involved in the 2015 version of *The Skriker* with which the thesis opens exploited this very point, openly connecting the production to a warm emotional climate change discourse in the broader context.

Chapter One: A Story of Cultural Divides, Feedback Loops and Circularity

The crux of the discussion in Chapter One lies in the framing of human systems as ecologies, ecosystems and feedback loops. At one level this can be read as a metaphor. However, as discussed in the Introduction (see Definitions on pp. 20-24) it goes deeper than that, suggesting that all human behaviour, including human thought, has its origins in ecology and biology. Human behaviour is ecosystemic, shaped by the ‘controlling environment’ in which organic entities are embedded. The implication of this view is the necessity of seeing the problem of environmental degradation through ecological spectacles – or, to use the term coined for this thesis, ecoanthropocentrically. Thus, if nascent cultural feedback loops – such as the ecosystem of ecodata or the ecotheatrical events described above – are to be

⁹⁴ In a different context – performance as research – Jenny Hughes describes the challenge of improvising ‘different kinds of reactions to capture the complex and sometimes contradictory interpretations of audiences’. See: ‘The Usefulness of Mess’, in Kershaw and Helen Nicholson, eds., *Research Methods in Theatre and Performance* (Edinburgh: Edinburgh University Press, 2011), pp. 186-209 (p.198).

ecoeffective – shifting the Anthropocene so that it becomes the Ecoanthropocene – they need to become sufficiently large and powerful (by means of multiple connections and feedback loops) to interrupt the warming system of feedback loops hinted at in Figure 1.08 (p. 46). It would be absurd to expect ecodata or ecotheatre to have sufficient shapeshifting powers to solve this existential problem alone, but as part of a broader social movement both it may have the power to help propel that movement forwards.

This chapter also addresses an important problem discussed by Kershaw in 1992 – the need to find a way of measuring theatrical efficacy (thus theatrical ecoefficacy in this context). It was a challenging problem in 1992, and remains so. The main problem with audience survey evidence, for example, is that data points that happen to be picked up in spectatorial responses to questionnaires will not necessarily describe what is really happening in the overall system – my own experience of the Arcola *Godot* being a good example. The three theatrical events described in this chapter – *The Skriker* in 2015, the Arcola *Godot* and the Meadow Meanders – all come across, in my description of them, as having been ecotheatrically effective from my perspective as a spectator and participant. However, in all cases, it is possible to identify occluded feedback loops. Even if all such productions happen to be part of an ecotheatrical movement composed of multiple feedback loops pushing back against a bigger force, such as consumerism, the movement represented by these and many other small theatre productions might be invisible and unmeasurable. Yet this would not necessarily denote the absolute occlusion of the environmental shapeshifter, other than in the eye of the beholder so describing it. Indeed, an ecotheatrical movement positioned in the slipstream of a social movement aligned in the same direction is surely characterized by significant potential ecotheatrical efficacy, and untangling one loop from the other to attribute success to one or the other would prove nothing, when causality would inevitably be running both ways in a self-reinforcing system. This implies that assessments of ecotheatrical efficacy must be expected to be characterized by obliquity and circularity, and self-reinforcing feedback loops seeking to push the broader system in the right direction for the environment, should they be identified, would represent the height of ecotheatrical efficacy even if, at first sight, they look too small to have much impact. Ultimately, no single entity can define what is effective. The best an

ecocritical perspective may be able to provide is a series of incomplete glimpses of parts of the overall system, rather like those experienced by the Meadow Meanderer walking round ecosystem feedback loops on the ground.

Chapter Two. Revealing the Environment on Stage

The subject-matter of this chapter of the thesis is double-edged in being about theatre ecocriticism, as well as ecotheatre. The term ecotheatre is, moreover, ambiguous. It might denote ecocritical theatre – theatre specifically designed to convey an environmental or ecological message. However, ecotheatre read as ecological theatre could also denote theatre in which ecology and biology are consciously present as shapeshifters, in which there may or may not be an intentionally ecocritical message. If the relationship between theatre ecocriticism and ecotheatre is beginning to sound like a feedback loop, this is only to be expected. In the ecological perspective of this thesis theatrical production (ecotheatre) and reception (ecocriticism) are inseparable from each other, and sometimes impossible to distinguish from each other, within the overall ecosystemic, shapeshifting dynamic of the theatrical event.

This chapter begins by playing with ecotheatre and theatre ecocriticism as feedback loops in the context of another lived ecotheatrical experience. It goes on to contextualize theatre ecocriticism in the broader field of ecocriticism, and describes a brief but key moment for theatre ecocriticism that predates Chaudhuri's occlusion article and the first appearance of *The Skriker*. An exploration of possible definitions of theatre ecocriticism and ecotheatre follow. I then soundboard these definitions against three theatrical concepts on which I focus because ecocritics have regularly engaged with them. They are environmental theatre as defined by Richard Schechner; potential meanings of site-specific theatre and how this might connect to theatre as landscape from an ecocritical perspective, and naturalism as potentially ecotheatrical notwithstanding views to the contrary mentioned in Chapter One.

Ecotheatre: The Environmental Shapeshifter as a Lived Experience

In 2011, I experienced the premiere of Stephens' climate change play *Wastwater* (directed by Katie Mitchell) at the Royal Court Theatre. The playwright knowingly thematises climate change in the play thus it can be described as ecocritical theatre.⁹⁵ However, *Wastwater* foregrounds social behaviour, thus the environment on stage might appear to be occluded. This possibility was seemingly reinforced by the series

⁹⁵ Andrew Dickson, 'A troubling place', *Saturday Guardian*, 9th April 2011. 'Though admitting that global warming is the root of the play [...], Stephens is too alert to turn it into environmentalist agitprop.'

of dislocated images in the three acts of the play: weeds invading a dilapidated old greenhouse in Act One, a plastic hotel room in Act Two, and an abandoned airport warehouse in Act Three. The fact that I could see a trajectory of environmental degradation (alongside the escalating sense of horror as each scene progressed) hinted at the possibility that the environmental shapeshifter was at work. However, as I will show, deciding whether the production was ecoeffective, in terms of driving change in the relationship between human beings and their controlling environment, is not straightforward.

In the first scene, Frieda (Linda Bassett) and her foster son Harry (Tom Sturridge) chatted affectionately in the doorway of a dilapidated old greenhouse about to be overtaken by overgrown greenery. It was an emotional moment for both. Harry was packed and ready but not wearing any socks, about to fly across the world to a new job as an environmental scientist. The initial sense of harmony produced by the affectionate mother-son relationship so skilfully sketched out by means of small detail (such as the socks, and Harry's concerned reaction to a cut on Frieda's leg) was gradually destroyed in two ways. Aircraft noise so loud the first time it happened I ducked down into my seat was heard at regular intervals; messages arrived every few minutes on Harry's mobile phone (one or two spectators reached for their own phones on the first sound) and he immediately broke off from the conversation to answer them – this was commented on by Frieda as 'like a kind of tic'.⁹⁶

As the conversation evolved we discovered that Harry might be running away from his past. He also feared Frieda to be at risk from an unsettling former (now adult) foster child called Sian. When the curtain went up on the second and third acts each was more shocking than the last, starting from the initial moment of visual dislocation and continuing through the story that followed. Act Two was an adulterous assignation between two damaged individuals in a synthetic airport hotel room dominated by garish orange coloured furnishings and a large always-on (and constantly networked) TV. In Act Three, a dithering individual called Jonathan stood in a black, empty warehouse full of puddles. (I was not sure if the chill I felt was cold air flowing from the larger space on the stage, or the sense of dread evoked

⁹⁶ Stephens, 'Wastwater', in *Wastwater and T5* (London: Methuen Drama, 2011), p. 10.

by the scene.) He was put through a bullying adoption suitability interview by a gun-toting child-trafficker, whose life history included an incident of gratuitous animal-killing with her bare hands, and who already knew Jonathan's dismal story of failure in detail. She described to him all the information she had collected about him by following the traces of a downward spiral he had left behind him on the internet: failed attempts to conceive a child, adoption ineligibility, the internet searches for children for sale, and the unfortunately-timed separation from his wife that was undoing his adoption resolve. The sociopathic child-trafficker was Sian (Amanda Hale), and at the end of the play one of several uncertainties was whether the runaway system of behaviour at work in her would loop destructively back to Frieda, now without Harry there to help protect her.

The seeming triptych of separate scenes thus turned out to be interconnected in an ecology of horrifyingly runaway feedback loops, in an excellent example of a socio-environmental ecosystem out of balance. At one level, the constant presence of the airport and electronics were visual and auditory signs pointing to dysfunctional human behaviour. At another level, visible to an ecoanthropocentric perspective, they were shapeshifters in the form of fossil fuel energy feedback loops magnifying social and environmental imbalances. For the protagonists in each scene were there, in that moment, because of dysfunctional behaviour in each of their pasts, and these turned out to be connected to each other in several ways. A leitmotif in evidence in all three scenes was a cycle of child abuse and neglect, and its ongoing consequences in the lives of those involved. Thus, the question this production raised was whether Sian, the most disturbed (and disturbing) protagonist, was produced by the nature/culture divide besetting the society she was borne into. The tragedy, for Frieda, was not only that she could not repair the damage but, because of ecologies and feedback loops beyond her control she had inadvertently magnified Sian's power as a damaging shapeshifter in the form of an adverse societal feedback loop.

At first sight, *The Skriker* and *Wastwater* are quite different. The former is about human beings and fairies, and the latter about damaging social behaviour. However, both plays depict an ecological fusion of social and environmental wreckage within which they thematise climate change. The spectatorial experiences I describe suggest that whether the whole ecological picture is seen or not is likely to

depend on the point of view. Thus, the nature/culture divide is also potentially an ambiguous shapeshifter of meaning. On the ecocritical page, writers such as Chaudhuri in 1994, Cless in 2010, Chaudhuri again in 2015,⁹⁷ and Lavery and Finburgh in 2016⁹⁸ express the view that: ‘In the study and creation of theatre, ecological perspectives have been rare and late.’⁹⁹ However, alongside the seeming ‘ambivalence of theatre in the face of a calamity for humanity’, Kershaw also describes an emerging ‘international movement of environmental and ecological creative performance groups’.¹⁰⁰ Elsewhere, ecocritic Todd A. Borlik describes the ‘acuity of Shakespeare’s engagement with nature’.¹⁰¹ Egan meanwhile plays with the language of Shakespeare in such a way as to tease out the environmental shapeshifter potentially embedded therein. He identifies the modern idea of entropy in the asymmetry of meaning in phrases such as ‘done/undone’.¹⁰² As these examples, plus productions such as *The Skriker* and the production of *Wastwater*, suggest, assertions to the effect that the environment is absent on stage are open to challenge. The obliquity of the ecological message in *The Skriker* and *Wastwater* alike (both Churchill in 1994 and Stephens in 2011 were reluctant to campaign overtly) suggests that both plays were conceived with the aim of achieving a mind-set shift in their audiences (who might be more likely to engage with the ideas in the plays if challenged). In short, both plays can be described as ecoanthropocentric, and potentially ecoeffective – depending on how spectators responded to them.

A Key Moment for Theatre in the Field of Ecocriticism

Ecocriticism is a relatively new term. According to The Association for the Study of Literature and the Environment (ASLE) it first made a brief appearance in the field of literature in a 1978 essay by Rueckert – ‘Literature and ecology: An Experiment in Ecocriticism’.¹⁰³ Its next public appearance was not (also according to ASLE) until the 1989 Western Literature Association (WLA) meeting in Coeur d’Alene, after which the field developed more rapidly. The 1994 WLA conference entitled

⁹⁷ Chaudhuri, 2015 [2013], p. 105.

⁹⁸ Lavery and Finburgh, 2015, loc. 109.

⁹⁹ Cless, 2010, p. 8.

¹⁰⁰ Kershaw, 2007, pp. 10 and 28.

¹⁰¹ Borlik, *Ecocriticism and Early Modern English Literature: Green Pastures* (New York: Routledge, 2011), p. 206.

¹⁰² Egan, p. 9

¹⁰³ Rueckert, ‘Literature and Ecology. An Experiment in Ecocriticism’, in *Ecocriticism Reader*, ed. by Glotfelty and Fromm, pp. 105-123.

Defining Ecocritical Theory and Practice is well-recognised as a key moment for ecocriticism in general, but, as will be seen, less well recognized for a defining ecocritical moment for theatre. In this conference Glotfelty ‘called for [the] adoption [of the term] to refer to the diffuse critical field [...] known as “the study of nature writing”’,¹⁰⁴ and Glen Love seconded her in a speech entitled ‘Revaluing Nature: Towards an Ecological Literary Criticism’. The sixteen conference position papers in the 1994 ASLE online compilation ‘Defining Ecocritical Theory and Practice’ turn out to be of interest in the context of ecotheatre in two ways. In combination, they lay the ground for ideas that can be seen to run through ecotheatre; and one of the papers contains a noteworthy piece of theatre ecocriticism.

In this conference, Glotfelty’s position paper was particularly important in setting out an ecocritical agenda that is still not out of date in the context of ecotheatre at the time of writing. In a few words, she encapsulates ecocriticism as a form of politics taking a stand on the relationship between human beings and their environment, as a perspective inevitably driven by place and society, and as a potential field of critical theory alongside fields such as feminism and Marxism:

Simply defined, ecocriticism is the study of the relationship between literature and the physical environment. Just as feminist criticism examines language and literature from a gender-conscious perspective, and Marxist criticism brings an awareness of modes of production and economic class to its reading of texts, ecocriticism takes an earth-centred approach to literary studies.¹⁰⁵

The same article emphasises the interconnectedness of everything, an idea already running through the influential Gaian thinking mooted by Lovelock in the 1980s, but not readily accepted at that time.¹⁰⁶ Thus, Glotfelty:

If we agree with Barry Commoner’s first law of ecology, that “Everything is connected to everything else”, we must conclude that literature does not float

¹⁰⁴ ASLE, *Defining Ecocritical Theory and Practice* (Electronic Publication: ASLE, 1994) <www.asle.org/site/resources/eco-critical-library/intro/defining>. The papers referred to in the following footnotes are also found at this website link.

¹⁰⁵ Glotfelty, ‘What is Ecocriticism’, position paper, Western Literature Association, 6th October 1994, Salt Lake City, Utah (Electronic Publication: ASLE), http://www.asle.org/wp-content/uploads/ASLE_Primer_Defining_ecocrit.pdf.

¹⁰⁶ Lovelock, *The Ages of Gaia: A Biography of Our Living Earth* (Oxford: Oxford University Press), Preface, p. xiii.

above the material world in some aesthetic ether, but, rather, plays a part in an immensely complex global system, in which energy, matter and ideas interact.

She concludes by observing that ‘language and literature transmit values with profound ecological implications’ thus hinting at the environmental politics and ethics running through many theatrical productions.

Glotfelty’s important paper can be seen to connect backwards through time to the fusion of social and environmental contexts in evidence in ‘naturalism’ as described by Raymond Williams. It also reaches forwards to the several UK climate change plays, to noteworthy ecotheatrical productions such as the 2015 production of *The Skriker* and to ecotheatrical performances such as Kershaw’s Meadow Meanders. The main thematic threads in her paper run through several of the other fifteen papers in different ways. Harry Crockett emphasises the need for literary cross-disciplinarity with the natural sciences.¹⁰⁷ Stephanie Sarver refutes the possibility of ecocriticism as critical theory, framing it, rather, as a focus drawing on ‘a variety of theories, such as feminist, Marxist, post-structuralist, psychoanalytic and historicist’.¹⁰⁸ Don Scheese frames nature writing as potentially political,¹⁰⁹ and for Mark Schlenz ecocriticism is (and should be) political:

[E]cocritics should seek to transform academe by bringing it back into interconnection with the worlds we all live in – inescapably social and material worlds in which issues of race, class, and gender inevitably intersect in complex and multi-faceted ways with issues of natural resource exploitation and conservation.¹¹⁰

Fifteen of the sixteen papers do not talk about the stage. Theatre is conspicuous only by its absence in Thomas K. Dean’s enumeration of ‘cultural products (art works, writings, scientific theories etc.)’;¹¹¹ and is only hinted at in Schlenz’s mention of Meeker’s *The Comedy of Survival*, which questions whether ‘the stories we tell will finally contribute to our survival or extinction’.

¹⁰⁷ Crockett, ‘What is Ecocriticism?’

¹⁰⁸ Sarver, ‘What is Ecocriticism?’

¹⁰⁹ Scheese, ‘Some Principles of Ecocriticism.’

¹¹⁰ Schlenz, ‘Survival Stories: Towards an Ecology of Literary Criticism.’

¹¹¹ Dean, ‘What is Ecocriticism?’

How ironic, then, considering that ecocritics mostly seem, on the basis of this small sample of papers, not to talk about theatre, that it is Ralph W. Black's article entitled 'What We Talk About When We Talk About Ecocriticism' that opens: 'Not long ago I saw *King Lear* again'. This brief but insightful article gives an individual spectator's ecocritical perspective on a modern production of a Shakespearian classic, thus implicitly positions ecotheatre in the context of production and reception, and theatrical ecocriticism as focusing on performance, rather than primarily written text. In an excellent example of the nature/culture divide embedded within the field of ecocriticism, Black describes *Lear* as 'one of the last books [he] would put on an environmental literature reading list'. Nevertheless, as a second-time (at least) spectator of Laurence Olivier's *Lear* on DVD, Black saw the possibility of 'exploring the relationship between human and natural worlds in the play'.¹¹² He describes the way in which 'the commodified landscape is sliced up and parceled out to the highest rhetorical bidder' thereby connecting a pre-1990s production of the play to a modern-day discourse of (natural and human) exploitation and oppression. In this article, he thus hints at the possibility of theatrical environmental politics and environmentally political theatre, in the context of modern productions of Shakespeare. Although the insights Black delivers, as theatre ecocritic, could theoretically have been gained from a simple reading of the text, there seems to have been something about this production, in which the part of King Lear was played by theatrical giant Olivier, that triggered ecocritical insights going beyond the mere presence of nature in the text or in the scenery.

Defining Theatre Ecocriticism

If ecocriticism, in its simplest definition, is the study of the relationship between literature and the physical environment,¹¹³ then theatre ecocriticism also encompasses the study of the relationship between the theatre and the physical environment. Just as the ecocritic seeks to 'track environmental ideas and representations wherever they appear, to see more clearly a debate which seems to be

¹¹² Black, 'What We Talk About When We Talk About Ecocriticism'. Olivier took on the role of Lear twice: in the Old Vic production of 1946-7, and in the 1983 Granada Television production; I have assumed Black is referring to the film, which was published as a DVD in the USA on 26th January 1984 by Kultur Video.

¹¹³ Glotfelty; and see Meeker.

taking place, often part concealed, in a great many cultural spaces',¹¹⁴ the theatre ecocritic can be said to track such ideas in the context of the theatrical event. For the environment on stage, however, definitions do not stop at the perspective of outside observer implied by an ecocritical stance. The players in the metaphorical or imaginary environment on stage also perform in the physical and social environment, embedded, whether consciously or not, in Aldous Huxley's ecological tragedy.¹¹⁵ On the one hand, 'All the world's a stage, | And all the men and women merely players,'¹¹⁶ performing and (as Kershaw describes it) being performed by their environment, whether they are aware of the tiny stature of the bit parts they play in the whole, or not. On the other hand, the entire planet can be contained in the diminutive 'cockpit'¹¹⁷ of the stage, as the wide range of ideas encompassed in plays such as *The Skriker* demonstrates. All theatre is potentially ecological, because the possibility of an ecocritical perspective is always open to anyone involved in production or reception, whether this was the intention or not.

The promising beginning in theatre ecocriticism described above, in which the perspective of the spectator led the way in to a brief but critical ecotheatrical insight, was not immediately followed by a stream of theatre ecocriticism rooted in production and reception. Writers on the environment on stage, such as Cless, were more inclined to focus on textual interpretation such as the following. Interesting though these literary links are, they do not address the relationships embedded in the theatrical event in an all-round sense:

It appears that *Dream*'s positive outcome of environmental restoration [...] may have been Shakespeare's creative rebound from a twenty-month plague that broke out in the summer of 1592 and was the worst in his lifetime. [...]. To contemporary audiences, Titania's speech provokes associations of severe weather induced by climate change, massive species extinction, and ecological devastation such as rainforest destruction.¹¹⁸

¹¹⁴ Kerridge, 'Introduction', in Kerridge and Neil Sammells, eds., *Writing the Environment: Ecocriticism and Literature* (London: Zed Books, 1998), p. 5.

¹¹⁵ Huxley, *The Human Situation* (London: Chatto & Windus, 1978).

¹¹⁶ Shakespeare, *As You Like It*, II,7, 140-1.

¹¹⁷ Shakespeare, *Henry V*, Prologue I, 11.

¹¹⁸ Cless, p. 100.

Although some idea of how ‘audiences’ respond to any given performance of any given play can be gained from research techniques such as observation, survey, interview or the theatre talks devised by Sauter,¹¹⁹ ultimately it is impossible to know for sure what is going on in this complex entity even from one performance of the same production of a play to the next. However, as suggested in Chapter One and further discussed in Chapter Three, the complex, interconnected perspective provided by Theatrical Events research may prove fruitful for the environment on stage, potentially helping to answer the complex question raised by Kershaw:

In what ways has the theatre been unavoidably embroiled in the ecological mess that is climate change? What could the theatre not help itself doing to stem or strengthen the causes of the environmental calamity that scientists started clamouring about? What was intrinsic to the theatre’s myriad links into its social, political, economic, historical and, yes, environmental milieu?¹²⁰

Defining Ecotheatre

Following Meeker, if literary ecology is defined as ‘the study of biological themes and relationships which appear in literary works’, then by analogy theatrical ecology – potentially ecotheatre under another name – is the representation of biological themes and relationships on stage.¹²¹ This idea begs other questions about representation itself, for what is represented by design may unthinkingly stage, thus become complicit in, the prevailing environmental culture. Hence, Kershaw plays with the terms ‘*theatre ecology* (as in *human ecology*)’ and theatre *ecology* as in the ‘processes of theatre’s unavoidable ecological engagement and/or disengagement regarding the environment.’¹²² More simply, the term might also describe plays or their productions in which the calamitous consequences of a degraded natural environment for humanity are depicted – for instance, the ‘landscape of famine’ connecting to future environmental apocalypse in the plays of Samuel Beckett,¹²³ or, more recently, the UK climate change plays written by playwrights such as Stephens,

¹¹⁹ Sauter, ‘Thirty Years of Reception Studies: Empirical, Methodological and Theoretical Advances’, *About Performance*, 10 (2010), 241-263 (244-6).

¹²⁰ Kershaw, 2007, p. 10.

¹²¹ Meeker, 1972, p. 9.

¹²² Kershaw, *Ibid.*

¹²³ Roach, 2002, pp. 84-93.

Bean and Macmillan between 2004 and 2011. As these examples of the thematization of dearth and climate change often suggest, ecotheatre can also potentially be political theatre.

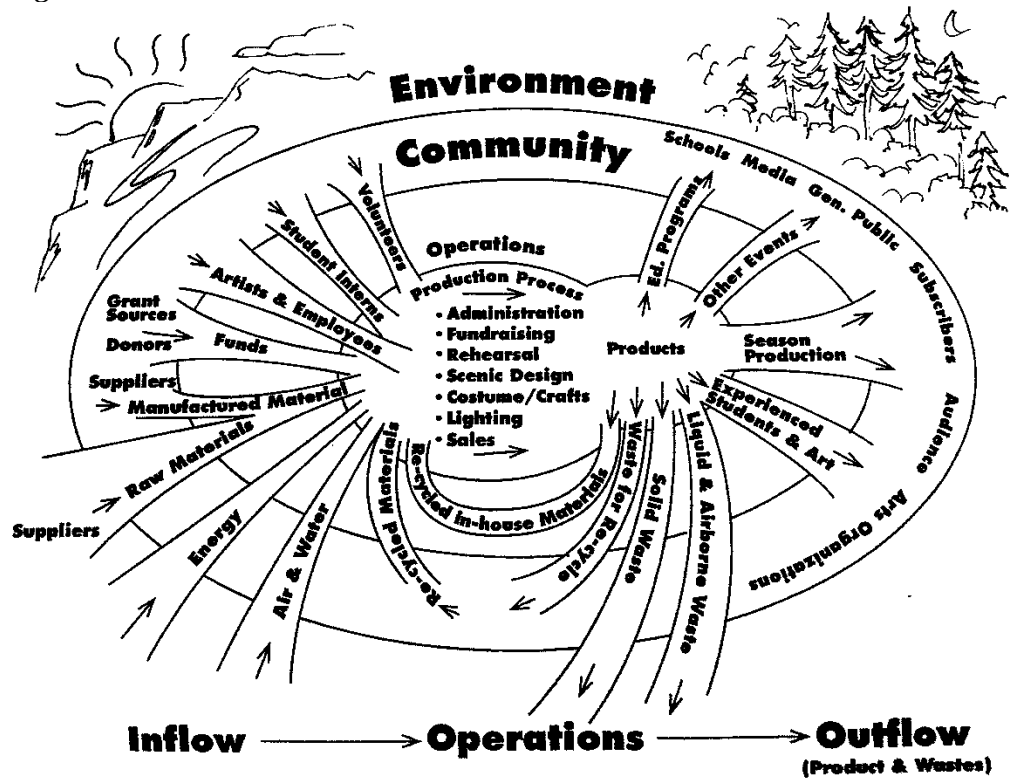
In one of the early 1990s titles to link the theatre and the physical environment, *Ecologies of Theatre* by Marranca explores the idea of ecological systems within the arts from a number of perspectives. She discusses Gertrude Stein's description of a play as a 'landscape', describes John Cage as 'document[ing] the sounds of the world, bringing human, animal, vegetable, mineral, industrial, meteorological and artificial sounds together just as they exist in the environment'; and explores 'dramaturgy as an ecology' with reference to the work of Robert Wilson.¹²⁴ Ecotheatre does not necessarily have to be about systems, however. It could also refer to theatre in which the director excavates individual threads of meaning in the production (or, where appropriate, in the play text) with a view to putting nature centre stage as a shapeshifter. A memorable example for me as a spectator was the watery magic in Cheek by Jowl's 2011 production of *The Tempest* in Russian at the Warwick Arts Centre,¹²⁵ where the cold sensation of water trickling down the protagonists' necks at appropriate moments was literally used to produce a shivery reaction to the supernatural in the body of the actor, perhaps eliciting a sympathetic shiver, and awareness of our inevitable connection to (and vulnerability within) nature, in the spectator.

Coming back to earth, the term ecotheatre could also be used in a much narrower physical sense to refer to the work of theatres that seek to minimize their real-life environmental footprint by the way they manage the energy, water, materials and transport that facilitate production operations. Following on from the 'first international conference on the environment for theatre professionals' in the early 1990s, Larry K. Fried and Theresa J. May included the following diagram in their guidebook for theatre-practitioners intent on greening their theatre operations.

¹²⁴ Marranca, 1996, pp. xiii, 26, 34-48.

¹²⁵ Attended in person, March 2011. Declan Donellan, dir., *The Tempest* in Russian (Cheek by Jowl / Chekhov International Drama Festival), Warwick Arts Centre <www.cheekbyjowl.com/the_tempest.php>.

Figure 2.01: The Theatrical Metabolic Chart



Source: *Your Theatre's Metabolic Chart*, created by Theresa May. See Fried and May, p. 16. Reprinted with permission.

Their book draws on the prototypical company conceived by Ernest Callenbach, Fritjof Capra and Sandra Marburg,¹²⁶ to produce the concept depicted in Figure 2.01; namely, the theatrical metabolic chart. When originally developed, this chart was well ahead of its time in attempting to site all theatrical productions in the broader context, including the environment.¹²⁷ Here, theatre is configured as another system, not as a living system, but as an industrial input-output model that mimics ecological stocks and flows.¹²⁸ Resources, drawn from the environment and the community, are put through the theatrical production machinery, delivering outputs and waste after the theatrical process has run its course. However, on closer inspection this mapping may also suggest perpetuation for the nature/culture divide

¹²⁶ Callenbach et al., *The Elmwood Guide to Eco-Auditing and Ecologically Conscious Management* (Berkeley, CA: The Elmwood Institute, 1990).

¹²⁷ Fried and May, *Greening Up Our Houses: A Guide to a More Ecologically Sound Theatre* (New York: Drama Book Publishers, 1994), pp. 16-17. This out-of-print book as well as permissions may be obtained by contacting the author directly at: tmay33@uoregon.edu at the university of Oregon.

¹²⁸ See Faye Duchin, 'Industrial Input-Output Analysis: Implications for Industrial Ecology', *Proceedings of the National Academy of Sciences of the United States of America* (PNAS), 1, 89 (1992), 851-855.

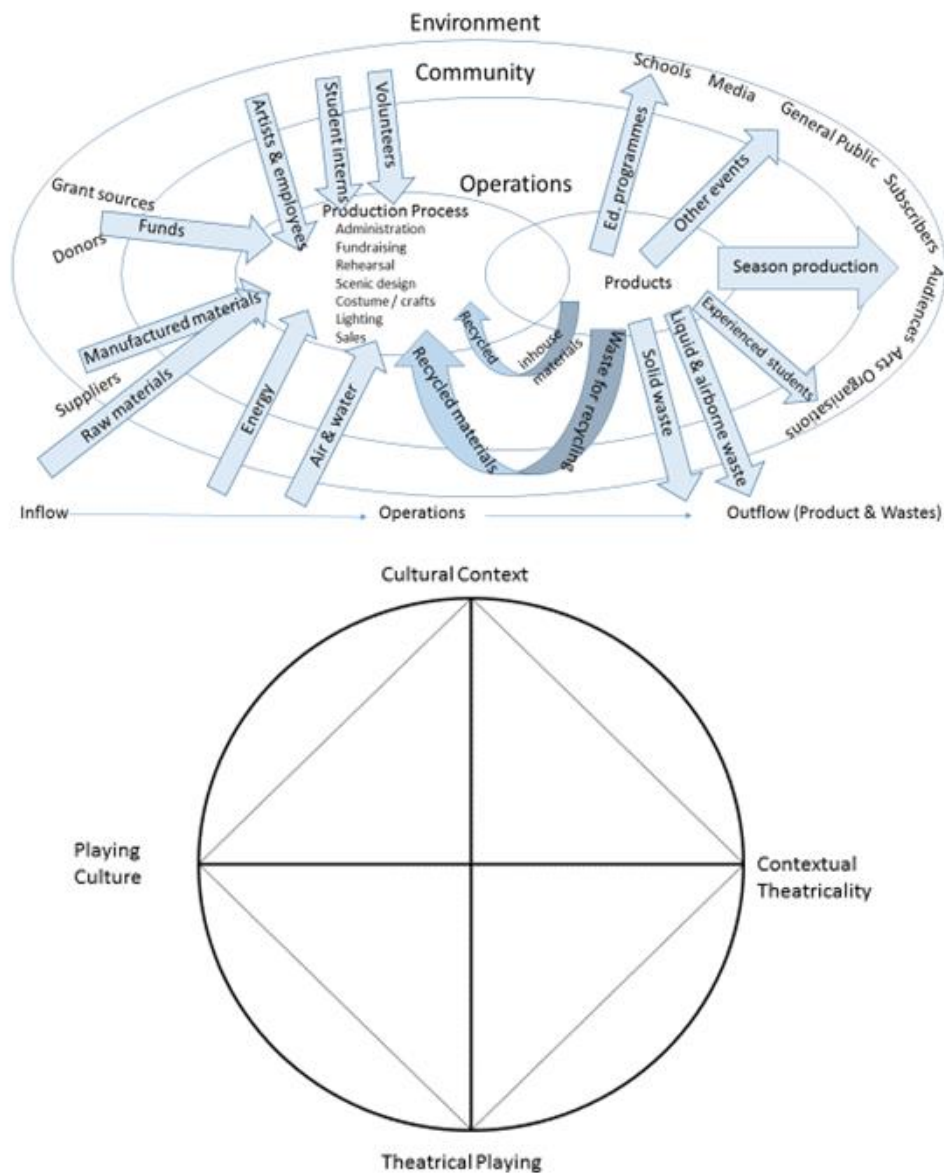
that is argued throughout this thesis to characterise the relationship between human beings and their environment. The first point to note is that this concept is framed primarily in terms of tangible resources (natural, human, financial), with much less emphasis on intangible inputs such as culture or aesthetics.

The second point to note is that the community and the environment appear (perhaps more by accident than design) to be unconnected, other than indirectly when theatrical productions draw directly on the environment. Even though the all-important resource recycling loop is present, it seems to be implemented in the context of the nature/culture divide discussed in Chapter One. It may not be fair to read this diagram as symptomatic of persistence of the segmented thinking ecocritics describe as having persisted since the early 1990s. The segmentation it seems to contain could, as suggested above, be an unintended accident in the drawing. As drawn it nevertheless reminds one of the risk described by Andrew James Hartley – that ‘the material conditions by which a production is generated and staged may actively subvert and trump the apparent political [or ecological] content of the production itself.’¹²⁹

On the other hand, other ideas may run counter to potential divides, as can be seen by juxtaposing the shapes of the Theatrical Metabolic Chart and the Diamond Model, as in Figure 2.02. The seeming occlusions in connectivity in Fried and May’s diagram, found in the context of theatrical operations represented as a metabolic chart, could readily be occluded themselves by the broader, interconnected theatrical ecosystem as represented in the Diamond Model immediately beneath. Similarly, the separation of the Diamond Model from the environment (as discussed in Chapter One) could potentially be over-ridden by the environmental connectivity represented in the metabolic chart. The insight added by each model in respect of the counterpart model in the comparison is the potential for each model to shift towards a more ecoanthropocentric configuration as defined in this thesis, albeit in a different sense.

¹²⁹Hartley, *Shakespeare and Political Theatre in Practice* (London: Palgrave Macmillan, 2013), p. 23.

Figure 2.02: Ecological Perspectives on Production and Reception



Sources: Fried & May, p. 16, redrawn from Figure 2.01 (p. 79); and Sauter, 2004, p. 12

As discussed in Chapter One, the Diamond Model was constructed with the aim of analysing theatrical events. It could also be applied to the mental picture of theatrical operations (Figure 2.01, p. 79): a contextual theatricality of separation between operations and aesthetics, thus by implication nature and culture, informs its construction. This point is not intended as a criticism of the idea of the Theatrical Metabolic Chart— rather, its shape may reflect the state of affairs in the playing

culture, cultural context and theatrical playing nodes of the theatre industry and the context in which it found itself in the early 1990s. Moreover (thinking back to the Arcola *Godot*) whether such divides matter – whether they reflect spectatorial reactions at work within the overall event – is still unanswered.

If all the aspects of ecotheatrical events discussed above – ecological themes, threads of meaning, physical conditions, theatre operations – were to apply at the same time, in an alignment of ecological perspective through every aspect of the production, it might be fair to describe such alignment as ecotheatrical in an all-round sense, amounting to an entire philosophy of theatrical production. Chaudhuri discusses the theatre of Spalding Gray as her paradigm for an innovative ecotheatre that establishes ‘a new relationship between itself and the world’:

Gray’s practice stands against postmodernism’s entropic dissemination of ideas and images; it is a theater of gathering together, and its modes are those of an ecological imperative: narrative (continuity), memory (recycling), and austerity (conservation).¹³⁰

Narrative, memory and frugality (a term I find preferable to austerity) describes the essence of my experience of the Meadow Meander as described in Chapter One. It also captures the essence of the Paines Plough production of Macmillan’s climate change play *Lungs*, briefly described here and explored further as a lived experience in Chapter Three. Stage directions at the opening state clearly:

The play is written to be performed on a bare stage. There is no scenery, no furniture, no props, and no mime. There are no costume changes. Light and sound should not be used to indicate a change in time or place.¹³¹

When I saw it, it was (and continues to be) performed in a portable in-the-round theatre that can be easily shared between cities without the need for a built theatre infrastructure. Ecotheatrical themes – climate change, and planetary degradation under the weight of human consumption – are complimented by what seems to be

¹³⁰ Chaudhuri, *Staging Place: The Geography of Modern Drama* (Michigan: The Michigan University Press, 1995; repr. 2000), p. 83.

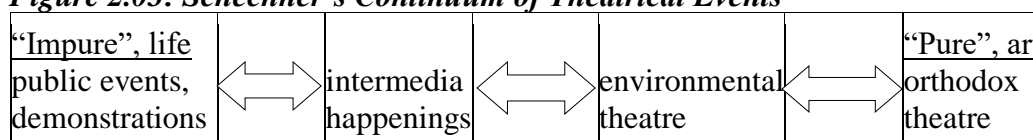
¹³¹ Macmillan, *Lungs* (London: Oberon Books, 2011), p. 22. The play text was the theatre programme. This page number refers to play text on sale in theatres in the UK, with Alistair Cope (M) and Kate O’Flynn (W) under Richard Wilson’s direction.

(on the evidence of the recycling and resource frugality that are built in) a relatively low environmental footprint achieved by the combined approaches of the playwright Macmillan and the theatre company Paines Plough. It is thus a striking piece of coherent ecotheatre produced with intent, and another ecoeffective example of the presence of the environment as a shapeshifter on stage.¹³²

Environmental Theatre

When it first appeared, the term environmental theatre was the opposite of ecotheatrical in an all-round sense. This is not surprising since the term environmental used in this context did not denote an agenda of ecocriticism or environmental politics. Schechner positions it in the continuum shown in Figure 2.03,¹³³ thus suggesting it to be a form of unconventional theatre (standing outside the realm of ‘pure’ theatre shown on the right), but one that is more radical in a formal rather than political (or ecopolitical) sense. The theatrical event as described by Schechner is ‘a set of related transactions’ ranging from ‘from chance events and intermedia, to the “production of plays”’.

Figure 2.03: Schechner’s Continuum of Theatrical Events



Boxes added

This layout suggests the environment in environmental theatre to be relatively distant from ‘impure life’ even though natural events and the nexus of media events that unfold around them might belong under either heading. Thus, environmental theatre as defined by Schechner seems to be the opposite of ecological theatre, if the latter is defined as theatre that explores the relationship between human beings and their physical environment and is furthermore based on the (ecological) idea that everything is connected to everything else. Yet, his view of environmental theatre as

¹³² See James Grieve and George Perrin, ‘Flatpacks and Footlights: why the UK needs a touring in-the-round theatre’, *Guardian*, October 2011.

<www.theguardian.com/stage/theatreblog/2011/oct/flatpack-touring-theatre-paines-plough>.

¹³³ Schechner, ‘Six Axioms for Environmental Theater, 1967, revised 1987’, in *Environmental Theatre: An Expanded New Edition including “Six Axioms for Environmental Theater”* (New York: Applause, 1973, 1994), pp. xix-xlv (p. xix).

a theatrical event has some of the characteristics of ecological theatre. As described by Schechner the theatrical event is a complex system:

[...] the drama is what the writer writes; the script is the interior map of a particular production; the theater is the specific set of gestures performed by the performers in any given performance; the performance is the whole event, including the audience and the performers (technicians, too, anyone who is there).¹³⁴

Indeed, the whole point of environmental theatre as defined by Schechner himself is the non-linear ‘complex social interweave’ implied in the above quotation.¹³⁵

Although Schechner discusses the evolution of the meaning of the word environmental ‘in the late ‘70s or ‘80s’ to encompass ‘its popular ecological meaning’, the introduction to his revised edition of *Environmental Theatre* persists in proposing a clear division between the ‘theatrical’ and ‘ecological’ meanings of the term ‘environment’ – as terms that are ‘not antithetical’ but nevertheless on parallel tracks. The nature/culture divide could not be clearer:

In terms of planet earth, the environment is where life happens. [...] In terms of performance, an environment is where the action takes place. [...] The action is also where the audience is, where the actors dress and makeup, where the theatre does its business (lobby, box office, administrative offices). [...] All these interlocked systems [...], all this, and more, comprise the “performance environment”.¹³⁶

For Schechner, an environmental performance is thus not necessarily ecocritical or environmentally political in intent. It is one in which the several aspects of the ‘action’ are ‘recognised as alive’, and in which ‘whole “environments” were created through which spectators travelled’. Although the two strands – planetary and theatrical – are separate in this configuration of environmental theatre, Schechner, discussing the planetary environment in 1994, nevertheless discusses a number of

¹³⁴ Schechner, *Performance Theory: Revised and Expanded Edition with a New Preface by the Author* (London: Routledge, 1988, 2003), p. 87.

¹³⁵ Schechner, 1973, 1994, p. xx.

¹³⁶ Schechner, 1973, 1994, pp. ix-x.

ideas that connect readily to Williams:¹³⁷ the power of human agency to influence natural events; the possibility for the discovery of ‘finer links between human agency, the agency of other living beings, and what was not so long ago believed to be a separate and dumbly operating nature’.¹³⁸ Even if he does not appear to pursue it, Schechner nevertheless identifies the potential for environmental theatre to be read ecocritically. (Thinking back to the definitions in the Introduction, this could be interpreted as the environmental shapeshifter weaving unrecognised ecological meaning through his writings, visible through an ecoanthropocentric lens.)

Environmental Theatre, Site Specificity and Theatre Ecologies

For Chaudhuri, the ‘reconceptualization of the theatrical space’ in environmental theatre as defined by Schechner seems to be the opposite of ecological theatre, for it is ‘a dream of infinite live space’ to be exploited as a theatrical resource.¹³⁹ She cites Fernand Leger, co-director of the experimental film *Ballet Mecanique* in 1924, the year in which he reportedly said:

Overwhelmed by the enormous stage set of life, what can the artist who aspires to *conquer his public* do? He has only one chance left to take: to rise to the plane of beauty by considering everything that surrounds him as raw material [...].¹⁴⁰

Chaudhuri describes the problem this raises as ‘resourcism’, a perspective that sees the natural world as an unlimited stock of raw materials designed to feed the demands of the ‘modern consumer culture’, thus, ‘an arena toward which conquest and domination are the appropriate responses.’ The presence of the word ‘conquer’ in Leger’s statement implies a colonialist model of theatrical production. Thus, this comment not only suggests that site-specific theatre could, as discussed earlier, run counter to the agenda of ecocriticism, but also that it is potentially supportive of the exploitative consumerist feedback loops sometimes apparent in the context of Schechner’s international productions:

¹³⁷ Williams, ‘Social Environment and Theatrical Environment: The Case of English Naturalism’, in *English Drama. Forms and Development*, ed. by Marie Axton and Williams (Cambridge: Cambridge University Press, 1977), pp. 203-223, (pp. 204-5).

¹³⁸ Schechner, *Ibid.*

¹³⁹ Chaudhuri, 1995, pp. 25-6.

¹⁴⁰ Chaudhuri cites the 1924 Fernand Leger block quotation found at the opening of Ch. 7 – ‘Environments and Happenings’ – in *The History and Theory of Environmental Scenography* by Arnold Aronson (Ann Arbor, MI: UMI Research Press, 1981), p. 153.

Environmental theater and scenography is expensive and time-consuming because whole spaces have to be redesigned and constructed. Ironically, I've been able to experiment with environmental theatre design in less-than-rich-countries whose theatre artists are avidly interested in theatre design and whose producers are willing to invest in it [...].¹⁴¹

There may be some hope for planet earth in the fact that all systems (natural or human, theatre included) have their limits. Disconnected from aesthetics as the thinking driving theatre operations often appears to be, environmental constraints in theatre operations could nevertheless serve a practical purpose in the context of Schechnerian environmental theatre by potentially constraining resource usage. For, as Schechner himself suggests, environmental theatre can be resource-heavy, thus, expensive, potentially giving economic forces the teeth to act as a constraint.

However, economics is unlikely to be enough, as a single feedback loop, to produce constraints in the name of the environment. Schechner's comment not only accidentally highlights the potentially resource-heavy nature of some site-specific theatre; it also indirectly hints at the politics associated with resource profligacy in the context of countries known to be vulnerable to environmental change. For to export this model of theatrical production is potentially to export a consumerist model of theatrical production, suggesting complicity with the political and market systems that have exported conventional economics, carbon-intensive energy and soil-degrading agricultural practices to emerging countries. This connects directly to Kershaw's 2007 question cited above, begging the question of how the theatre has embroiled itself in the social, political, economic, and ecological messes left behind by developed nations in such countries. What seems to have been forgotten in the rush to innovate is that many theatrical environments, as linguistic creations, require no resources other than the imagination. Whether environmental theatre as configured by Schechner becomes resource-intensive or alternatively ecoaware as suggested by its nomenclature ultimately depends on the context in which such thinking develops. When boundaries are broken down, the result might be profoundly anti-ecological theatre ecologies, or the opposite. Environmental theatre as Schechner defined it is a good example of an ecosystem having shapeshifting

¹⁴¹ Schechner, 1973, 1994, p.xiv.

capabilities. However, lacking ecoanthropocentrism, it risks becoming the opposite of ecoeffective as discussed in the Introduction:

With its strategies for breaking down the boundaries separating audience and stage, twentieth century environmental theater and scenographic practice sought to incorporate the material context of performance within the theatrical event itself.¹⁴²

The contrast between Schechner's usage of materials in a manner that ignores their shapeshifting capabilities, and Bennett's ecoanthropocentric framing of materials as 'vibrant matter' (see Introduction), is striking.

Site-Specific Theatre and Ecotheatre

In the 1994 introduction to his 1973 book, Schechner briefly mentions that, in the 1990s, environmental theatre had 'gone big time' even rejoicing in a new name, "'site specific" performances'.¹⁴³ He thus identified an important locus of the environmental theatre debate, but, once again, it must be emphasized that he did not see site-specific theatre as a form of ecological theatre. However, in plays staged outside, in the literal but often not-so-natural environment, the environment was and is likely to become a prominent part of the overall theatrical experience, thus the environment as a shapeshifter is inevitably present as part of the overall experience of the theatrical event. In such productions, meaning potentially arises from a three-way 'process of negotiation [...] between the site, the performance and the spectators'.¹⁴⁴ At a simple, functional level the space chosen might literally represent the setting in any given play text, thus effectively evoking the fictional space depicted in the production. From an aesthetic or thematic perspective, the aim might be for the performance to respond to the specific character or features of the space;¹⁴⁵ and from an ecotheatrical perspective, the aim could be to have the audience reflect upon their relationship with environment.¹⁴⁶

¹⁴² Stanton B. Garner Jr., 'Urban Landscapes, Theatrical Encounters', in Fuchs and Chaudhuri, 2002, pp. 94-118 (pp. 100-101).

¹⁴³ Schechner, 1973, 1994, p. ix.

¹⁴⁴ Fiona Wilkie, 'Kinds of Place at Bore Place: Site-Specific Performance and the Rules of Spatial Behaviour', *New Theatre Quarterly*, 18, 3 (August, 2002), 243-260. Abstract.

¹⁴⁵ The term site-responsive theatre is also used to describe this approach.

¹⁴⁶ Thanks to my supervisor for this three-point framing.

When the term site-specific theatre was originally coined in the 1980s, it was intended, commented theatre critic Andy Field, to describe ‘the relationship to the local environment’ drawn out in some performances, but not imposed on that same environment by the terms of the production.¹⁴⁷ As an example he cited the ‘amazing’ work of the theatre company founded in 1981 by Lis Hughes Jones and Mike Pearson, Brith Gof. Pearson and Michael Shanks explore an intertwining of two discourses – theatre and archaeology – ‘in an account of projects which begin to fuse performance and archaeology in the dynamic interpretation of the material past’.¹⁴⁸ They link two ecologies – the ecology of performance as a ‘matrix of environment, people and events and narratives generated’ and the ‘ecology of archaeology both as discourse and as heterogeneous object of interest’.¹⁴⁹ In a similar vein Kendra Fanconi of Vancouver’s The Only Animal Company explored a dialoguing of place and memory from one site and production to the next in a way that reminds one of Roach’s response to the landscape of famine in *Godot*:

The trees in Stanley Park, where boca del lupo and I made *The Last Stand*, is a place that knows height in a way you and I never will. It is thinking backwards in time down to the ground. In a natural site, the memory is geographic. It remembers the beginning, when the Earth folded rock and the sea drowned valleys.¹⁵⁰

Such approaches make possible the overt presence of the environment on stage as a shapeshifter, in the form of the dynamic excavations of the relationship between the ‘constructed environment of performance’ and (in some contexts) the consequent limits and pressures exerted upon the physiological human body performing within it.¹⁵¹ However, as discussed below, site-specificity does not automatically imply the ecological mode of continuity, recycling, and austerity Chaudhuri aspires to.¹⁵² Quite the reverse, for the removal of some of the bounds, limits and pressures

¹⁴⁷ Field, “‘Site-specific theatre’? Please be more specific”, Theatre Blog, *Guardian*, 6th February 2008 <www.theguardian.com/stage/theatreblog/2008/feb/06/sitespecifictheatrepleasebe>.

¹⁴⁸ Pearson and Shanks, *Theatre / Archaeology* (London: Routledge, 2001), p.1.

¹⁴⁹ Pearson and Shanks, p. 55.

¹⁵⁰ Hartley, pp. 105-6. See also Susan Bennett and Mary Polito, *Performing Environments* (Basingstoke: Palgrave Macmillan, 2014), who describe site-specific performance as a ‘powerful means by which to instate memory’, p.8.

¹⁵¹ Pearson and Shanks, p.17.

¹⁵² Chaudhuri, 1995, p. 83.

potentially exerted by purpose-built theatre buildings opens the door to potentially unlimited possibilities, up to and including a non-ecological trajectory of divides and substantial resource footprints. The reverse can also apply – hence the example of the Meadow Meanders, requiring a minimum of resources and leaving behind only a trace of its presence, once its meandering human occupants have moved on.

The Landscape Imaginary

Any theatrical location (whether purpose-built or not) shapes ecological meaning, through the way in which every aspect of it collides in the mind of the spectator with his or her internal landscape. Thus: ‘Every dramatic world is conditioned by a landscape imaginary, a “deep” surround suggested to the mind that extends far beyond the onstage environment reflected in the dramatic text and its scenographic representation.’¹⁵³ The landscape imaginary on stage is not a single thing but a diaspora scattered through the individual imaginations of the creative team and each member of the audience. The theatrical ‘artist’, described above by Leger as seeking to ‘conquer’ his or her audience, is unlikely to be able to control ‘everything that surrounds him’. Thus, is there is an offset to the problem of unlimited consumerism Chaudhuri fears in the form of natural limits potentially imposed by feedback loops in the theatrical ecosystem.

This discussion begs a return to Stein, who became aware of spectatorial limits in her teens. She found watching plays in performance a distracting experience:

I became fairly consciously troubled by the things over which one stumbled to such an extent that the time of one’s emotion in relation to the scene was always interrupted. The things over which one stumbled and there it was a matter of both seeing and hearing were clothes, voices, what the actors said, how they were dressed and how that related itself to their moving around.¹⁵⁴

For Stein, too much visual and auditory stimulation seemed to intrude, in the context of emotional reactions to the production. Restating the above in the ecological terminology of this thesis, the potential emotional feedback loops she describes were

¹⁵³ Fuchs, ‘Reading for Landscape: The Case of American Drama’, in Fuchs and Chaudhuri, 2002, pp. 30-50 (p. 30).

¹⁵⁴ Jane Palatini Bowers, ‘The Composition that All the World Can See: Gertrude Stein’s Theater Landscapes’, in Fuchs and Chaudhuri, 2002, pp. 121-144 (p. 123), citing Stein, *Lectures in America* (1935; rpt. Boston: Beacon Press, 1985), pp. 114-5.

occluded by excesses elsewhere. This means, in short, that much of the energy and other resources that went into the production of the performances she saw were wasted from her point of view. Later, from watching a play in a foreign language she did not understand, and thereby limiting the scope of the experience, she discovered that 'experiencing the performance provided more pleasure than understanding the play'.¹⁵⁵ She did not write from an overt ecocritical perspective. Nevertheless, ecologies and feedback loops run through her writings on plays.¹⁵⁶

Naturalism as Potentially Ecotheatrical

One of the earliest pieces of theatre ecocriticism is not so labelled although it has been widely recognised as such. This is the 1977 article by Williams (just a year before Rueckert) entitled 'Social Environment and Theatrical Environment: The Case of English Naturalism'. This article distinguishes between mere 'setting' and the environment defined as a fusion of the physical manmade and natural environments, thus a force that shapes and is shaped by the people within it. So-defined, naturalism consists of the 'conscious presentation of human character and action *within* a natural and social environment'.¹⁵⁷ In its time, naturalism has been described as a reaction against the 'rearrangement and systematic amputation of the truth' running through the classical and romantic movements. Some of the ideas running through naturalism as discussed by Emile Zola – such as the insistence on accuracy in costume, set and acting – could imply the opposite of ecotheatre on the basis of potential resource requirements. However, Zola sets 'metaphysical man, the abstraction who had to be satisfied with his three walls in tragedy' against 'physiological man [...] asking more and more compellingly to be determined by his setting, by the environment that produced him'.¹⁵⁸

Following a similar train of thought, August Strindberg contrasts realism ('a tiny art which cannot see the wood for the trees') and 'true naturalism, which seeks out those points in life in which great conflicts occur, which rejoices in seeing what

¹⁵⁵ Palatini Bowers, p. 124.

¹⁵⁶ Gertrude Stein, 'Plays', in *Lectures in America* with a new Introduction by Wendy Steiner (London: The Modern Library, 1935; Virago Press 1988), pp. 93-131.

¹⁵⁷ Williams, pp. 204-5.

¹⁵⁸ Zola, 'From Naturalism in the Theatre', in *The Theory of the Modern Stage*, first published in Zola's collected works in 1881, ed. by Eric Bentley (London: Penguin Books, 1968, 1990), pp. 351-375, (pp. 362, 369, 370).

cannot be seen every day', ¹⁵⁹ and his naturalistic tragedy, *Miss Julie*, strove to be neither 'one-sidedly physiological nor one-sidedly psychological'. ¹⁶⁰ The emphasis on physiological man immediately connects to nature, potentially reaching across the nature/culture divide discussed in Chapter One of this thesis. Thus, Williams frames naturalism in a manner that is consistent with the ideas of interconnectivity that run through ecocriticism, whether on the page or on the stage:

In high naturalism, the lives of the characters have soaked into their environment [and] the environment has soaked into the lives. The relations between men and things are at a deep level interactive, because what is there physically, as a space or means for living, is a whole shaped and shaping social history. ¹⁶¹

The ecoanthropocentric awareness of the unavoidably close dependency between man and the physical environment and the physical and social 'limits and pressures', ¹⁶² this creates was thus in the wings before the word ecocriticism was invented. Moreover, such constraints and forces were most obviously in evidence on the stage at a much earlier date in the works of Strindberg, Ibsen, and Chekhov. Later works in a similar tradition, suggests Marvin Carlson, include Sam Shepard's late 1970s and early 1980s works: *Curse of the Starving Class*, *Buried Child*, *True West* and *Fool for Love*. Entanglements of language and landscape can be seen as another perspective on the two-way 'soaking' between human lives and the environment described above:

[These plays] relate language and landscape (probably not at all coincidentally) in a manner already quite familiar to audiences used to the tradition of Ibsen and Chekhov. The parched farmland outdoors in *Starving Class*, the cornfield in *Buried Child*, the prairie in *True West*, and the desert in *Fool for Love*, like the attic in Ibsen's *Wild Duck* or Chekhov's *Cherry Orchard*, serve as complex repositories of symbolic and psychic reference,

¹⁵⁹ Strindberg, 'On Modern Drama and Modern Theatre (1889)', in *Samlade Skrifter*, 55 vols., Stockholm 1912-19), XVII, 288-9. Cited in Williams, p. 217.

¹⁶⁰ Strindberg, 'Author's Preface', *Miss Julie*, trans. by Edwin Bjorkman (New York: Charles Scribner's Sons, 1913; Dover Publications, 1992), pp. ix-xx (p. xi).

¹⁶¹ Williams, p. 217.

¹⁶² Williams, pp. 205 and 218.

but all of these locations remain solidly anchored within the objective world of realism and naturalism.¹⁶³

Carlson's comment suggests that my ecocritical reading of Williams' naturalism article discussed above would not necessarily be accepted by all concerned for several reasons. Just as environmental theatre as defined by Schechner has seemingly nothing to do with the ecosystem (or, in another sense, everything), theatrical productions in the realist and naturalist traditions have been regarded as having no connection to nature or the ecosystem. However, in the ecoanthropocentric sense discussed in the Introduction, they cannot avoid entanglement. This is also the case in Shepard's plays, which can be interpreted as reperforming a double deracination produced by the 'extraordinary havoc' (as Shepard described it) of the American Dream.¹⁶⁴ Thus in the plays Carlson names, human beings have separated themselves from each other within families fractured by violent power-seeking behaviour. At the same time, they have broken away from the natural world because of their exploitative relationship with the land they live on – or, as Garner Jr. described the environment in Shepard's plays, 'living space reduced to an alien heap of things'.¹⁶⁵ However, a true breaking away is impossible, for ecologies and biology continue to drive the system their behaviour has distorted.¹⁶⁶ Similarly, read from the perspective of the 21st century, in Williams' thinking the idea of environment comes across as a hybrid of the manmade and the natural. For the ecocritic it is possible to react to this in one of two opposing ways.

¹⁶³ Carlson, 'After Stein: Travelling the American Theatrical "Landscape"', in Fuchs and Chaudhuri, 2002, pp. 145-158 (p. 149).

¹⁶⁴ Matthew Roudané, 'Shepard on Shepard: An Interview', in *The Cambridge Companion to Sam Shepard* (Cambridge: Cambridge University Press, 2000), pp. 64- 80 (p. 69).

¹⁶⁵ Garner, Jr., *Bodied Spaces: Phenomenology and Performance in Contemporary Drama* (Ithaca: Cornell University Press, 1994), p. 97. See also the connection made by May between degraded soil and Willy Loman's failure in *Death of a Salesman*, in 'Greening the Theater: Taking Ecocriticism from Page to Stage', *Interdisciplinary Literary Studies* (7) (1), Fall 2005, 84-103 (92).

¹⁶⁶ I saw *Buried Child* in January 2017 at Trafalgar Studios, directed by Scott Elliot, with Ed Harris as Dodge and Amy Madigan as Halie. The naturalist set featured the sound of pouring rain, water leaks drumming loudly into tin receptacles, and a pile of corn husks covering a dying man like a shroud. The idea that a field, barren since the 1935 American Dustbowl, should suddenly and simultaneously deliver up 'some kinda fancy hybrid' sweetcorn and the bones of a child (also a hybrid son/brother as the product of incest) murdered by his grandfather/stepfather in response to the return home of the child's father/brother is more supernatural than naturalist. The entanglement of the self-destructive family and the soil wrecked by their farming practices could be read, ecoanthropocentrically speaking, as the self-derailment of the runaway warming system of the American Dream. Play text: Shepard, *Buried Child* (Dramatists Play Services Inc., revised edition, 1997).

The ecoanthropocentric perspective sees the natural environment as adapted by the creatures living within it as a realistic definition of the environment and works from this perspective towards a sustainable balance. The opposite perspective might be to see only an environment degraded by human beings. Thus Chaudhuri (in an argument that could ironically also be interpreted as an instance of the nature/culture divide running through ecocriticism), sees the idea that ‘the lives of the characters have soaked into their environment [and] the environment has soaked into the lives’ as ‘hyperenvironmentalist’.¹⁶⁷ As Chaudhuri uses this term, it seems to denote the presence of the nature/culture divide – in her words the ‘fundamental dislocation’ between ‘humankind and nature’. The context in which she uses the term is as follows in *Staging Place*:

The sort of rupture between character and environment I am after occurs not before or after but within this hyperenvironmentalist moment of naturalism. Because, as Williams makes clear, this hyperenvironmentalism is in the service of a social drama (in which the stage represents a space "shaped and shaping social history" [217]) it ignores – or even actively obscures – the non-social parts of the environment.¹⁶⁸

Since Williams himself describes the relationship between human beings and the ‘physical and social environment’ as ‘at a deep level interactive’ it is not clear that the non-social aspects of the environment have been hijacked to social ends, as this implies. Examples of environments cited by Williams as entwined ‘in the deepest layers of the personality’ are the room and garret in Ibsen’s *Wild Duck*, the ‘trapped interior’ in Strindberg’s *The Father* and the orchard in Chekhov’s *Cherry Orchard*. These loci can be read as hybrids of space shaped by human and non-human shapeshifters. The ecoanthropocentric perspective informing this thesis thus contests the idea of ‘hyperenvironmentalism’, and suggests that ‘occlusion’ does not necessarily describe what is happening to nature as represented by these environments in such plays. In *Wild Duck*, for instance, humans and non-humans

¹⁶⁷ As used by Chaudhuri this term appears to denote a runaway system of environmental exploitation. The ‘hyper’ prefix potentially connects to Morton’s idea of ‘hyperobjects’ – entities that dwarf humanity spatially or temporally. The term could also be applied to the ecosystems (individual or collective) discussed in this thesis. See Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis, MN: University of Minnesota Press, 2013), loc. 104.

¹⁶⁸ Chaudhuri, 1995, Footnote to Chapter Two, p. 274. Page numbers in [] refer to Williams, 1977, footnoted above.

alike react to life-changing damage by seeking to escape through a quick death.¹⁶⁹ The play is anthropocentric in the sense that the physiologically damaged entrapped duck tropes psychologically damaged entrapped humans. However, it is also ecoanthropocentric in recognising that all concerned (humans and non-humans) are subject to natural (physiological thus ultimately trans-species) forces. These drive the behaviour of humans and non-humans; thus, they are more than a simply theatrical presence. The occlusion of the natural, non-social environment may well be an accurate description of the way the plays are produced, or, indeed, of the way in which they are interpreted by production teams and audiences, but the potential for the reverse, an ecocritical interpretation, is always present.

Chapter Two: A Story of Assumptions about the Environmental Shapeshifter

It is clear from the material in this chapter that the nature/culture divide as a feedback loop does not always over-ride the environment as a shapeshifter on stage. It would nevertheless be naïve to suggest that the debate has moved on from 2007 when Kershaw, discussing '*theatre ecology*', and 'the processes of the theatre's unavoidable ecological engagement and/or disengagement regarding the environment, *theatre ecology*' in 2007, described a divide that is still seemingly in place in at the time of writing. The 'commodification' of the 'cultural industries' as 'just the latest stage in a long historical process that has tended to sever theatre from a responsive and responsible relation to the environment'¹⁷⁰ also continues. Nevertheless, as the examples discussed in this chapter suggest, the environment is likely to be identifiable as a theatrical shapeshifter on a regular basis in the absence of the nature/culture divide embedded in some ecocritical perspectives.

Ecoanthropocentrically assuming the environmental shapeshifter as more likely to be present than not in contexts where human society seems to be foregrounded might potentially be a powerful way forwards. Meeker suggests literary form must be 'reconciled if possible with the forms and structures of nature as they are defined by ecological scientists' on the basis that 'both are related to human perceptions of beauty and balance'.¹⁷¹ This idea is readily applied to

¹⁶⁹ Ibsen, 'The Wild Duck', in *Ibsen Plays One: Ghosts, The Wild Duck, The Master Builder* (London: Methuen, 1980), loc. 1993-4010.

¹⁷⁰ Kershaw, 2007, p. 312.

¹⁷¹ Meeker, 1972, p. 9.

theatrical form and content, especially when embedded ecologies are recognised. Some of the examples discussed in this chapter suggest a movement towards ecotheatre in an all-round sense (defined as theatre in which the environment is consistently and responsibly positioned) may be afoot. In theatre ecocriticism, the idea of theatre-as-ecosystem (Schechner, Marranca, Sauter, Pearson & Shanks and Kershaw in different senses) running through theatre ecocriticism contains the possibility of a change in human relationships with the natural environment, thereby echoing with the developments in ecodata discussed in Chapter One. In the ecotheatrical productions discussed so far in this thesis the idea of theatre-as-ecosystem is an important sub-structure behind the messaging in ecocritical theatre. Ecotheatrical examples such as *The Skriker*, *Wastwater*, *Lungs* and the Meadow Meanders suggest that ecotheatre that consciously or otherwise leverages the idea of theatre-as-ecosystem (within other ecosystems) will be more coherent as ecotheatre, and indeed theatre. When this is the case, the environmental shapeshifter embedded within might then be more visible to theatre critics and ecocritics. Overall, what is needed for ecoefficacy in theatre ecocriticism and ecotheatre is an ecoanthropocentric perspective designed to be open to the interconnectedness of the shapeshifting entities embedded in every aspect of the theatrical event.

Chapter Three. Ecological Frameworks for Ecotheatrical Efficacy

This chapter is about production and reception in live theatrical events, and it combines two perspectives. It is informed by the field known as event research,¹⁷² as well as by the ecoanthropocentric perspective described in the earlier chapters of this thesis. In combination, these two approaches suggest that actual or potential ecotheatrical efficacy in the context of live theatrical events will be conditional on what happens on stage and back stage, on the way to, in and on the way home from the auditorium for all involved, how audience and actors interact, what is happening in the outside world, and how it relates to the action on stage. The next section of the chapter further explains and explores the system of ideas underpinning the formation of the Diamond Model, by describing the conceptualisation of the model and some of the ideas that were in the mix as it formed, such as phenomenology, semiotics and behavioural psychology. After that the model is applied (as indicated in Chapter One) as a means of organising ideas around specific theatrical productions. Each of the nodes of the Diamond Model is applied to specific examples, with reference to ideas encountered in the earlier chapters, such as the possibility of ecotheatrical effects whether they were intended in production or not; the possibility that foregrounding a social narrative cannot always be described as environmental occlusion; and what happens to the environment as a shapeshifter when the stuff of theatrical operations is changed. The final sections of the chapter revisit ambiguity always potentially embedded in the role of the environment as a shapeshifter.

The Theatrical Events Working Group and the Diamond Model

Chapter One described the Diamond Model as a theoretical construct in which an ecosystem of further ideas is embedded. Some of these ideas can be described as occluded in the sense that they are at first sight hidden, but, as explained below, they play an important part in the workings of the model. This is partly because of the group of people involved in the formation of the model. The Theatre Events Working Group is one of several dynamic groups of researchers working within the International Federation of Theatre Research (IFTR). The umbrella organisation was

¹⁷² See Bennett, 1997; Cremona et al, 2004; and Tulloch, 2005, aforementioned.

founded in 1955, thus it is well-established as a fomentation-point for ideas – an important point in this context, for Sauter’s deep involvement in IFTR is reflected in his many years of involvement with the group and its precedents, and in his Presidency from 1991-1995. A brief glimpse at research typical of people who were IFTR presidents in contiguous years gives a hint of the rich, dynamic context in which the Theatre Events concept was formed.¹⁷³ Wolfgang Greisenegger and Erika Fischer-Lichte, who respectively preceded and followed Sauter in the role in the late 1980s and early 1990s, collaborated, for example, as co-editors on a 1992 collection of German Society for Theatre Studies papers that ranged over ‘cultural anthropology, semiotics, and issues of perception theory, authenticity, ritual and the body’.¹⁷⁴ Fischer-Lichte is described by Janelle G. Reinelt and Roach as one of a number of people who have formulated ‘highly developed applications of both semiotics and phenomenology to theatre and performance studies’.¹⁷⁵ Their edited book includes a paper by 1999-2003 president Josette Feral that sets the ground for the analysis therein as follows:

In order to come to grips with the interrelations involved in theatrical transactions, a phenomenological interpretation seems more appropriate than a strict semiological approach limited to the performance itself. Semiology, however, does provide the starting-point of objective tools, and is the ground upon which this performance analysis rests.¹⁷⁶

The above is sufficient to suggest that one of the problems grappled with by IFTR working groups and the academics who formed them was the limitations of single theoretical approaches to the analysis of highly complex, dynamic, impermanent theatrical performances. The challenge made it more likely, as Feral suggests, that seemingly irreconcilable approaches and theories such as semiotics and phenomenology could be insightfully combined within the rich collaboration under way within IFTR and its working groups, notwithstanding Sauter’s own reservations

¹⁷³ The International Federation of Theatre Research (2012), ‘History’ 2012 <www.iftr.org/organization/history> [Last accessed 31st March 2017].

¹⁷⁴ Moray Gowan, ‘Review. Arbeitsfelder Der Theater-Wissenschaft’, *Theatre Research International*, 21 (2) (1996), 183-183. Doi: <<http://dx.doi.org/10.1017/S0307883300014899>>.

¹⁷⁵ Reinelt and Roach, eds., *Critical Theory and Performance* (Ann Arbor: The University of Michigan Press, 2007, repr. 2010), p. 11.

¹⁷⁶ Feral, ‘Every Transaction Conjures a New Boundary’, in Reinelt and Roach, eds., pp. 49-50.

about the limitations of semiotics, discussed in *The Theatrical Event*.¹⁷⁷ Indeed the Theatrical Events Working Group suggests that the now widely-used concept of ‘eventness’ may have emerged from the IFTR melting pot, citing a 1995 Conference in which this concept was ‘focussed on repeatedly in the papers’.¹⁷⁸

Between 1995 and 2000 Sauter summarised his theories of the theatrical event in a publication co-authored with Jacqueline Martin, *Understanding Theatre*¹⁷⁹ and in a later volume, *The Theatrical Event*. A third volume, *Theatrical Events*, the definitive text on the theatrical event and the ‘eventness’ of theatrical performances, edited by the core members of the Theatrical Events Working Group, followed in 2004. *Theatrical Events* provides a helpful retrospective in its introduction, describing the growing interest in theatrical ‘eventness’ through the 1990s that helped prompt the 1997 formation of the Working Group, and the formalisation of the Diamond Model by that group.¹⁸⁰ The gestation of the model (and the melting pot supporting its conception) is also discernible in other writings by Sauter. For example, several components of the Diamond Model, though not yet combined as a formal model, are clearly discernible in Sauter’s 2000 book *The Theatrical Event*. Terms that would later be used to describe two of the four nodes of the Diamond Model – playing culture and cultural context – are directly discussed.¹⁸¹ The ideas of ‘contextual theatricality’ and ‘theatrical playing’ have not yet made their entrance but the elements underpinning those ideas are present. The by then well-established cross-disciplinary concept of theatricality (see for example Fischer-Lichte’s account of the concept in a 1993 IFTR symposium)¹⁸² is key to Sauter’s theoretical discussion of performative events:

Questioning theatricality as the communicative process between the performer’s exhibitory, encoded and embodied actions and the emotional and

¹⁷⁷ Sauter, 2000, loc. 76.

¹⁷⁸ Martin, ‘Preface’, in Cremona et. al, 2004, p. 1.

¹⁷⁹ Martin and Sauter, *Understanding Theatre. Performance Analysis in Theory and Practice* (Stockholm: Almqvist and Wiksell International, 1995).

¹⁸⁰ Martin, 2004, p. 1.

¹⁸¹ Sauter, 2000, loc. 991 and 159.

¹⁸² Fischer-Lichte, ‘I – Theatricality Introduction: Theatricality: A Key Concept in Theatre and Cultural Studies’, *Theatre Research International*, 20 (2) (1995), 85-89. doi: 10.1017/S0307883300008294.

intellectual reactions of the spectator is an effective tool to analyse and understand events of a performative nature.¹⁸³

Although not overtly mentioned, the ideas of contextuality (both cultural and theatrical) and playing – on stage and as an aspect of the culture surrounding the people involved in production and reception – can be described as running through this comment. This same comment also suggests that the concept of the theatre event, and the Diamond Model that represents it, are inseparably infused with phenomenology (‘embodied actions’ and ‘reactions’) and semiotics (‘encoded’) at the same time.

Phenomenology and the Diamond Model

Exploring further, the idea of playing – woven through the ‘playing culture’ and ‘theatrical playing’ nodes of the eventual model – turns out to be philosophically connected to the emotions through phenomenology: Sauter draws on hermeneutic thinker Hans-Georg Gadamer (who was a student of phenomenologist Heidegger)¹⁸⁴ for his definition of playing as the means by which the connection between performer and spectator is made during the processes of creating and experiencing theatre.¹⁸⁵ Playing, for Sauter, is one of three hermeneutical concepts he identified as potentially important to a ‘theory of theatre and performance’. The first is Gadamer’s ‘fusion of horizons’ which Sauter sees as applicable to ‘both past and present experiences’. The relevance of this point to theatre is clear to see in comments such as the following in Gadamer’s seminal work *Truth and Method*:

[T]he meaning of a text is not to be compared with an immovably and obstinately fixed point of view that suggests only one question to the person trying to understand it [...]. [T]he interpreter’s own horizon is decisive, yet not as a personal standpoint that he maintains or enforces, but more as an opinion and a possibility that one brings in to play and puts at risk, and that truly helps to make one’s own what the text says.¹⁸⁶

¹⁸³ Sauter, 2000, loc. 874.

¹⁸⁴ Robert Sokolowski, *Introduction to Phenomenology* (Cambridge: Cambridge University Press, 2000), p. 224.

¹⁸⁵ Sauter, 2000, loc. 103.

¹⁸⁶ Gadamer, *Truth and Method* (London: Bloomsbury, 2004, revised 2nd edition, first published 1975), loc. 8950.

This comment is part of a discussion of the way people come to understand each other in conversation as an approach to hermeneutics, ‘which is concerned with understanding texts’. The comment on ‘the meaning of text’ could easily be read to describe ‘playing’ in many guises including the production and reception of a play text or (to use an idea widely used in semiotics) a performance text.¹⁸⁷ Secondly, in an anticipation of the contextual nodes of the model (both theatrical and cultural) Sauter describes Gaudamer’s insistence on the importance of the ‘norms and values’ people bring with them to experiences (including the theatre). Thirdly he mentions Gadamer’s idea of “playing” [as a] basis for all art’.¹⁸⁸ As explained by Sauter, Gadamer does not view playing as a self-conscious process in which someone sends a message to a decoding receiver.¹⁸⁹ Rather, in Gadamer’s own words:

Our question regarding the nature of play itself cannot [...] find an answer if we look for it in the player’s subjective reflection. Instead we are enquiring into the mode of being of play as such. [...] Instead the work of art has its true being in the fact that it becomes an experience that changes the person who experiences it.¹⁹⁰

Phenomenology and Semiotics as Diamond Model Shapeshifters

As Gadamer’s differentiation between the lived experience and the self-conscious decoding process might suggest, Sauter’s writings tend to favour phenomenology over semiotics. As he describes the approach, semiotics does not describe what actually happens when people watch a theatrical event:

The field of semiotics, which was in vogue at the time [in the 1980s], was not very useful in empirical reception studies: spectators do not perceive “signs” which they describe and interpret for a scholar; they perceive “meaning” – and they have fun!¹⁹¹

I am nevertheless going to argue in the next few paragraphs that semiotics is embedded in the theatrical events approach to theatre analytics as represented by the Diamond Model. Speaking in general terms, a phenomenological approach to

¹⁸⁷ See for example Keir Elam, *The Semiotics of Theatre and Drama* (London: Methuen, 1980).

¹⁸⁸ Sauter, 2000, loc. 101.

¹⁸⁹ Sauter, 2000, loc. 105.

¹⁹⁰ Gadamer, 2004, loc. 2827-2846.

¹⁹¹ Sauter, 2000, loc. 76.

theatre poses no obstacle to combination of the two approaches, on the evidence of the many people who have combined semiotics and phenomenology – Reinelt and Roach,¹⁹² for instance, list a few of the more prominent researchers who take this approach – Fischer-Lichte et al,¹⁹³ Garner Jr.,¹⁹⁴ Carlson,¹⁹⁵ Susan Melrose,¹⁹⁶ Bruce Wilshire and Bert O. States.¹⁹⁷ Both perspectives can be said to run through Bruce R. Smith's *Phenomenal Shakespeare* which describes phenomenology as a 'way of [...] reading, thinking and liking'.¹⁹⁸ These three words alone draw on the inseparable nature of discourse and the emotions. 'Reading' inevitably reminds us of Umberto Eco's model reader (thence semiotician de Marinis's model spectator), whilst Smith's awareness of the importance of 'liking' helpfully recalls Sauter's discussion of the most commonly experienced emotions in the theatre – pleasure, sympathy, empathy and identification.

Considering the importance of the emotions for Sauter, it is unsurprising to find him downplaying semiotics, however his view that semiotics is not useful within a phenomenological approach is surprising considering his virtuosity as a cross-disciplinary thinker. He was not alone in insisting on the division. In a 1996 book review Brian Singleton (IFTR president just over a decade later) was in agreement with Martin and Sauter's message that 'semiotics is an inappropriate tool for the shifting paradigm of postmodern performance.'¹⁹⁹ A decade later, States conveys a sense that seeing everything on the stage as a sign can get in the way of connecting to the embodied emotions.²⁰⁰

The possibility that semiotics was embedded in the Diamond Model by a process of osmosis (despite Sauter's views on semiotics) is suggested by Sauter's own 1995 writings. Singleton's review of the book, cited above, happens to list

¹⁹² Reinelt and Roach, eds. 2007, p. 11.

¹⁹³ Fischer-Lichte, Jeremy Gaines and Doris L. Jones, *The Semiotics of Theater: Advances in Semiotics* (Bloomington: Indiana University Press, 1992).

¹⁹⁴ Garner, Jr., 1994.

¹⁹⁵ Carlson, *Theatre Semiotics: Signs of Life* (Bloomington: Indiana University Press, 1990).

¹⁹⁶ Melrose, *A Semiotics of the Dramatic Text* (Bloomington: Indiana University Press, 1994).

¹⁹⁷ States, *Great Reckonings in Little Rooms: on the Phenomenology of Theater* (Berkeley CA: University of California Press, 1985).

¹⁹⁸ Smith, *Phenomenal Shakespeare* (Chichester: Wiley-Blackwell, 2010), p. xvi.

¹⁹⁹ Singleton, 'Book Review, Understanding Theatre: Performance Analysis in Theory and Practice, by Martin and Sauter (With Contributions from Fischer-Lichte, Kirsten Gram-Holstrom, Patrice Pavis and Claude Schumacher)', *Theatre Research International*, 21 (3) (1996), 273-274. doi 10.1017/S0307883300015492.

²⁰⁰ States, 'The Phenomenological Attitude', in Reinelt and Roach, eds., 2007, pp. 26-36 (pp. 31-2).

illustrious semioticians amongst the contributors. Moreover, in the same volume Sauter is seen to combine hermeneutics and semiotics in a section of the book on ‘Semiotic Hermeneutics’:

The most positive aspect of the semiotic approach is that it provides the analyst with a systematic and logical way of approach into the myriad of separate elements in the production and suggests a way of differentiating between the important and unimportant signs so that an analysis can be made and an interpretation arrived at.²⁰¹

It seems that, even for Sauter semiotics can have its uses, and, I believe, the analytical application named above is one of the roles it is playing within the highly structured, systematic and logical yet flexible Diamond Model. His objection seems to be that semiotics unnecessarily narrows the field, whereas hermeneutics unshackled from semiotics ‘is far from being restricted to a strategy of performance analysis’.²⁰²

Nevertheless, Sauter’s theories of production and reception are not unambiguously phenomenological, rather, they seem to me to be a powerful blend of phenomenology and semiotics. This is apparent in the following comment.

Following a phenomenological path,²⁰³ I have divided theatrical communication into three levels or aspects, distinguishable by their nature, but dynamically interconnected during a performance: the sensory, the artistic and the symbolic.²⁰⁴

Following a primarily phenomenological path, Sauter seems to reject semiotics, regarding the process of theatrical communication. Or, does he? An answer is suggested by the above quotation. Taking in turn the three levels of communication aforementioned, the sensory level is readily described as phenomenological. Thinking about theatrical events in general terms, the artistic level could be described as both phenomenological and semiotic. Moving on to the third level,

²⁰¹ Martin and Sauter, 1995, p.75.

²⁰² Sauter, 2000, loc. 372.

²⁰³ Here Sauter footnotes Edmund Husserl (‘Ideen zu einer Phanomenologie und einer phanomenologischen Philosophie’, in *Husserliana*, vol. 3) and Dietrich Steinbeck (‘Schichten’).

²⁰⁴ Sauter, 2000, loc. 391. See also Sauter’s footnote 21 to Chapter One, at loc. 3052, where he explains the use of the word level as deriving from phenomenological approaches and suggests other synonyms could be used, ‘such as “aspect”, “mode” and at times even “means”’.

symbolic communication makes use of signs thus seems to be more about semiotics than phenomenology. It should be stressed, however, that symbolism is not only about signs. In the context of the thinking in this thesis, and indeed Sauter's thinking in the context of the theatrical event, if signs are separated from the emotions, they are likely to mean something different or even perhaps to lose their meaning altogether. The implication of the above comments is, thus, that semiotics is part of the ecosystem driving theatrical events, embedded and inseparable from the whole – sometimes occluded and sometimes visible, rather like the environment described by Chaudhuri. However, Sauter's work repeatedly finds that for symbolic meanings to be successfully communicated, emotional connections must also be made; here, his thinking connects to the work of psychologist Nico H. Frijda.²⁰⁵

Frijda's Emotional Laws as Embedded in the Diamond Model

Frijda may be invisible to newcomers to the Theatre Events Working Group (as I was in 2014) rather than to longstanding members remembering the longer-term narrative in the later work of the Theatrical Events Group. His name does not once appear in the 2000 text of *The Theatrical Event*. It is footnoted just once to the idea of an 'emotional process' arising from a 'stimulus' that triggers a 'feeling or a conscious/cognitive action' within the discussion of theatricality,²⁰⁶ and mentioned once in the bibliography. Frijda also makes only a brief appearance four years later in *Theatrical Events*, in a scene-setting article by Schoenmakers and Tulloch. The single reference to Frijda's work in this article is made within a discussion of sociological and psychological dimensions of audience research and reception research, in which a special edition of the journal *Poetics*, introduced by editors 'Schram and Frijda' (Frida and Dick Schram in the relevant journal)²⁰⁷ is given as an example of work by a group that tried to develop 'theories about different aspects of emotional involvement in spectators in theatrical [...] events'.²⁰⁸

Although Frijda's work thus comes across as occluded in the work of the Theatre Events Group on the evidence of infrequency of mentions, I argue in this

²⁰⁵ See for example Frijda, *The Emotions* (Cambridge: Cambridge University Press; Paris: Editions de la Maison des Sciences Des Hommes, 1986).

²⁰⁶ Sauter, 2000, loc. 726.

²⁰⁷ Frijda and Schram, 'Introduction' to Special Edition ('Emotions and Cultural Products'), *Poetics* 23 (Issues 1-2, January) (1995), 1-6. doi: 10.1016/0304-422X(1995)90009-W

²⁰⁸ Schoenmakers and Tulloch, 'From Audience Research to the Study of Theatrical Events', in Cremona et al., 2004, pp. 15-25 (p. 19).

chapter that his theories are, thanks to Schoenmakers in particular, embedded in the thinking behind the Diamond Model, thus it is unsurprising to find, as I did almost by accident as a newcomer to the group, that they can be usefully deployed in their own right in the context of this model. The way I arrived at this insight was as follows. Rowan, one of the members of the Theatrical Events Working Group I was involved in at the IFTR five yearly Congress in Warwick in 2014, strongly expressed the view that the theories of Frijda should be drawn on in the context of the group's Scandals discussion under way in that year. Frijda was new to me. I read two of his key works, was struck by how well his theories worked with my perspective on ecotheatre, and duly went on to apply them in the empirical work of Part Two. It was only when I began to historicize the work of Sauter and the relevant Working Group that I discovered what an important part Frijda's work had played in the earlier years, for the group. Rather like the ecosystem in some theatrical events, or phenomenology and semiotics in the Diamond Model, Frijda turned out to be embedded (thus seemingly but not actually occluded) in the ecosystem of this Working Group.

An important piece of evidence regarding Frijda's embeddedness is found in three volumes of essays developed in the late 1980s in the context of the IFTR. The first was edited by Schoenmakers,²⁰⁹ and the second by Sauter.²¹⁰ The third volume in the series was also edited by Schoenmakers. It includes papers by Sauter, Schoenmakers himself and another future Theatrical Events WG member, Eversmann, whose important work on embodied emotions is mentioned below. This third volume self-describes as based on presentations given at 1987 and 1989 IFTR workshops by the members of the International Committee for Audience and Reception Research (ICRAR). This group can (based on its membership) be fairly be described as the foundation stone for the later Theatre Events Working Group. The existence of these three publications thus provides a trajectory of idea-development over a crucial seven-year period running from about 1986 to 1992. The third volume includes an analysis of the nature of spectators' emotional reactions to

²⁰⁹ Schoenmakers, ed., *Performance Theory: Advances in Reception and Audience Research 1* (Utrecht: Instituut voor Theaterwetenschap, 1986).

²¹⁰ Sauter, ed., *New Directions in Theatre Research: Advances in Reception and Audience Research 2* (Utrecht: Instituut voor Theaterwetenschap, 1988).

theatrical performances' by Schoenmakers – the late 1980s material on which it is based may well be the first public discussion of Frijda's laws of the emotions in a theatrical context, thus, at the time, it was an important and exciting innovation.²¹¹ (In his draft chapter for the forthcoming *Scandals* book under way in the Theatre Events Group he also cites Elly A. Konijn,²¹² as well as his own work.) The invisibility of this earlier work in the later work of the Theatrical Events group is unsurprising, for the papers are not easy to find at the time of writing. All three volumes are nevertheless regularly cited by Sauter himself and others, a point that signals not only the long gestation period for the concept of the Theatrical Event described in later publications, but also the active working relationship between Sauter and Schoenmakers, making it inevitable that the ideas of Frijda were in the melting-pot of ideas within which this concept took shape.

Real-Life Emotional Reactions in Theatrical Events

As discussed above, Frijda and his collaborators were (with the exception of the 1995 work with Schram aforementioned) not writing about theatre. Their interest was in real life and human, and occasionally non-human, reactions to it: the 'possibility of animal empathy' was directly discussed in a 2004 symposium held in Amsterdam.²¹³ Frijda probably does not see his field as phenomenological. He describes 'phenomenologically oriented' theorists such as Robert C. Solomon as 'only partly right' in regarding emotions as an outcome of choices commenting that self-control ('regulation') has its limits 'in the face of direct impact of events'.²¹⁴ Frijda's view on Solomon (and indeed Solomon's views on Frijda's theories) seem to me to be about subtleties not sufficient to separate Frijda's laws of the emotions from phenomenological thinking. However, it is worth pausing to mark out Solomon's interest in combining psychology and aspects of philosophy (including phenomenology). In the aforementioned Amsterdam Symposium (where both men

²¹¹ Schoenmakers, 'Aesthetic Emotions and Aestheticised Emotions in Theatrical Situations', in *Performance Theory. Reception and Audience Research*, (Amsterdam: Tijdschrift voor Theaterwetenschap and IFTR, 1992), pp. 39-58.

²¹² Konijn, *Acting Emotions*, trans. Barbara Leach with David Chambers (Amsterdam: Amsterdam University Press, 1997, 2014). See also Konijn, 'Actors and Emotions: A Psychological Perspective', *Theatre Research International*, 20 (2) (1995), 132-40.

²¹³ Frans B. M. de Waal, 'On the possibility of Animal Empathy', in *Feelings and Emotions: The Amsterdam Symposium*, edited by Antony S. R. Manstead, Frijda and Agneta Fisher (Cambridge: Cambridge University Press, 2004), pp. 381-401.

²¹⁴ Frijda, 1986, p. 405. See also Solomon, 'Emotions and Choice', in *Explaining Emotions*, ed. By A. O. Rorty (Berkeley CA: University of California Press, 1980), pp. 251-81.

would have been present), Solomon himself provides a useful deconstruction of the emotions in one of the papers:

[T]he emotions *seem* to happen to us, quite apart from our preferences or intentions. [...] [E]very emotion has five [...] aspects: (1) behavioural [including facial expressions, verbal expressions and plans for action]; (2) physiological (hormonal, neurological, neuromuscular); (3) phenomenological (everything from “physical” sensations to ways of seeing and describing the “objects” of ones emotions and “meta-emotions”); (4) cognitive (including appraisals, perceptions, thoughts and reflections about ones emotions; and (5) the social context (from the immediacy of interpersonal interactions to pervasive cultural considerations).²¹⁵

Not unlike the overall system described by the Diamond Model, the various aspects of the emotions enumerated by Solomon can be described as a system of reactions to events. The psychological and physiological reactions Frijda describes in the context of his theoretical writings are (whether physiological or cognitive) embodied reactions (that happen to people says Solomon) in response to events that happen to people (says Frijda), thus their ideas seem to be two sides of the same coin:

Emotions are elicited by significant events. Events are significant when they touch upon one or more of the concerns of the subject. Emotions thus result from an interaction of an event’s actual or anticipated consequences and the subject’s concerns.²¹⁶

Although Frijda is discussing emotions in the context of real life events, the connection between the emotions and theatrical efficacy as discussed in the previous chapter is clear to see from the first sentence onwards – many theatrical performances are, after all, significant, potentially life-changing events in which emotions ‘happen to’ spectators. The subject-matter of Chapter Five – an exploration of connections between natural disasters and theatrical events – was directly prompted by this aspect of Frijda’s theories. In thus connecting Frijda’s theories and emotional reactions to theatrical events, I turned out to be exploring a well-worn pathway that had become deeply embedded within the Diamond Model.

²¹⁵Solomon, ‘On the Passivity of the Passions’, in Manstead et. al., 2004, pp. 11-29 (pp. 12-13).

²¹⁶Frijda, 1986, p. 6.

Schoenmakers' early innovation, so important to the Theatrical Events Working Group and its model, was to take Frijda's insights and apply them to theatrical contexts. The physiological reactions discussed by Schoenmakers connect readily to phenomenology, and the 'cognitive' reactions overlap easily with the field of semiotics. Both strands of thought are in evidence in his late 1980s workshop paper. He drew on Frijda's cognitive emotion theory to 'shed some light on the nature of the emotional response in theatrical situations'. His analysis differentiates between non-fictional and aesthetic modes of processing and suggests that spectators switch between these modes. In the first mode, spectators might feel 'disgust when [they] see blood' or 'anguish and fear' when they see an attack (in a non-fictional physiological response to fictional events). In the second, spectators respond to the actor rather than the character and 'judge the qualities [of] the actor' or respond acceptingly or otherwise to the theatrical norms reflected in the production.²¹⁷ The spectatorial response to theatrical events as described by Schoenmakers is, in essence, a complex ecosystem of different emotional feedback loops working on several different levels, in a process described by real-life psychological processes captured in Frijda's theories.

Relevance of Frijda's Theories to Environmental Crises – Implications for Ecotheatre

Frijda's theories were an interesting discovery in the context of ecotheatre in another sense. Several aspects of Frijda's theory, beyond those directly embedded in the Diamond Model, potentially explain some of the human behaviour observed in the context of environmental debates, particularly in the domain of cultural change. Thinking back to the opening of Chapter One, Kershaw is cited as referring to the slow response to well-known problems such as climate change – the 'ambivalence of theatre in face of a calamity for humanity'.²¹⁸ He thus describes, for the theatre sector, a behaviour that echoes a similar state of affairs in the broader context on the evidence of the slow response to ecodata discussed in the same chapter. While the attitude he describes can potentially be explained by ecologically adverse feedback loops such as incumbent energy and transport systems, it also recalls Frijda's Law of Apparent Reality, an aspect of his Law of Situational Meaning. The Law of

²¹⁷ Schoenmakers, 1992, pp. 51-52.

²¹⁸ Kershaw, 2007, p. 10.

Apparent Reality states that ‘emotions are elicited by events with meanings appraised as real, and their intensity corresponds to the degree to which this is the case’. This law, states Frijda, also applies to ‘events that are real but of which the implications are still far away’.²¹⁹

The interesting insight, for ecotheatre and theatre ecocriticism, is two-fold. First, environmental challenges need to come across as real, thus ecotheatre needs to work as theatre, and not primarily as an environmental campaign. Secondly, Frijda suggests that remoteness (which includes long lags in timing such as those at work in climate change) does not always act as a block to emotional reactions. Thus, as feedback loops, the emotions associated with such events might be quite powerful in running in the opposite direction to those keeping the consumerist status quo in place. Moreover, Frijda’s Law of the Conservation of Emotional Momentum describes emotional events as ‘[retaining] their power to elicit emotions indefinitely’.²²⁰ It is thus possible that theatrical events relating to extreme natural events, such as famine or flood, can tap into other pre-existing feedback loops in the form of strong emotional reactions, even if they refer to events long past.²²¹ Moreover, when extreme natural events actually happen, the emotions evoked can be all the more intense in the presence of such cross-connectivity: as Frijda (phenomenologically) put it, ‘Feeling means more than knowing.’ Sometimes the reaction to such events takes the form of expressed emotions (regret, anger, sadness, grief, horror and so on), and sometimes the emotional impact of the event leads to action, such as the mobilisation of aid, or preventative measures against further risk, or indeed, theatrical productions. Frijda describes this ‘state of action-readiness’ as ‘a central notion in emotion.’²²² Action-readiness can also be seen as core to the idea of theatrical efficacy.

The Making of Ecotheatrical (Emotional) Feedback Loops

Frijda’s theories are important in bringing theoretical support for one of the main arguments in this thesis. Namely, that theatrical events in general (and live performances specifically) seeking to be ecotheatrical with intent are more likely to be ecoeffective when they connect to the emotions. His theories readily connect to

²¹⁹ Frijda, *The Laws of Emotion* (New York: Routledge, 2007), p. 8.

²²⁰ Ibid., p. 14.

²²¹ This recalls Roach’s ‘landscape of famine’ in *Waiting for Godot*.

²²² Frijda, 2007, p. 4.

the definitions of key terms in the Introduction: the emotions are powerful flows of matter, energy and ideas; as ecosystem feedback loops they are shapeshifters of the system itself; recognising them as such requires an ecoanthropocentric frame of mind; and, in the context of ecotheatrical events, if emotional reactions are absent, ecoefficacy is unlikely to follow on. Following Frijda's psychological theories, emotional feedback loops will connect when the ecotheatrical threads of meaning running through live stage performances connect to something spectators care about. For ecotheatre to be ecoeffective, in Frijda's words the environment must be (or become) a 'daily life concern' in the relevant production.²²³ Frijda's work is also of interest in the context of ecotheatre in also connecting to the natural environment in a strictly phenomenological, sense: as he points out, the emotions have a biological (thus, phenomenological) basis:

[E]motions are [...] matters of the body: of the heart, the stomach and intestines, of bodily activity and impulse. They are of the flesh and sear the flesh. Also, they are of the brain and the veins.²²⁴

This comment also recalls Eversmann discussing embodied emotions in the context of the theatrical event.²²⁵ This is of interest in this context because human beings inevitably connect to the environment bodily, thus phenomenologically.²²⁶ In combination, the theories of Frijda and the phenomenological thinking of the Theatre Events Working Group as represented by Eversmann suggest that live theatrical events that deliver an intense emotional lived experience in the context of an overt ecological narrative will be highly effective as ecotheatre.

Exploring the Diamond Model

The structure of the Diamond Model was first encountered in this thesis in Figure 1.10 (p. 56) in the form of the diagram constructed by the IFTR Theatrical Events Working Group. It is used in this thesis as a framework for organising ideas because it is simple, yet flexible enough to capture and organize the potentially chaotic

²²³ Ibid, p. 7.

²²⁴ Frijda, 1986, p. 5.

²²⁵ Eversmann, 2004, p. 156.

²²⁶ See also McConachie, 'Ethics, Evolution, Ecology and Performance', in Wendy Arons and May, eds., *Readings in Performance and Ecology* (New York: Palgrave Macmillan, 2012), Ch. 7, pp. 90-99. He discusses connections between the imagination and bodily processes, with reference to the work of philosopher John Dewey.

system of interactions at work in all theatrical events. Moreover, as illustrated by the above discussion it is a focal point through which other ideas can be interconnected. On this basis, it is likely to be useful in highlighting the location of cognitive dissonance in productions intending to be ecotheatrical in their effects. Recapping, it is composed of four elements – theatrical playing, playing culture, cultural context and contextual theatricality, each discussed in turn, below.

Theatrical Playing

Theatrical playing is what happens in performance, on stage and in the interplay between the actions of the performers and the reactions of the spectators, thus it is internal to individual theatrical productions or events and corresponds to Kershaw's 'micro-level' conditions.²²⁷ This deceptively simple system of production and reception – the theatrical playing feedback loop situated in the overall system of the theatrical event – is potentially powerful as an analytical tool in the context of the ecological perspective driving this thesis. It provides a simple structure that can help to throw light on reasons why the environment might be, respectively, mere scenery, or shapeshifter on stage.

In theatrical events that are environmental with intent, Sauter's sensory, artistic and symbolic levels of communication can combine in different ways,²²⁸ and how they combine can determine whether, and in what sense, the environment as a shapeshifter is present. An example of consistently connected feedback loops in the theatrical playing node of the system is found in Theatre de Complicite's *Mnemonic*. There is a key scene in which the audience is asked to hold a leaf and, blindfold, run their fingers along its veins,²²⁹ in this way becoming directly connected, through nerve endings, nerves and synapses, to what is happening on stage and indeed in the auditorium. As described by Shepherd-Barr '*Mnemonic* directly engages the audience – indeed performs an experiment with the audience as subject. This interactive opening exercise of 'narrative (continuity) and memory (recycling)',²³⁰ and indeed frugality, 'sets up the framework for the rest of the performance.'²³¹

²²⁷ Kershaw, 1992, Introduction, p. 1.

²²⁸ Sauter, 2000, loc. 391.

²²⁹ Complicite, *Mnemonic* (London: Methuen Drama, 1999, 2001), pp. 6-7.

²³⁰ Chaudhuri, 1995, p. 83.

²³¹ Shepherd-Barr, *Science on Stage: from Dr Faustus to Copenhagen* (Princeton: Princeton University Press, 2006), p. 202.

Here, all three levels of communication – sensory, artistic, symbolic – are likely to connect to put the environment on stage as a shapeshifter for the spectators involved. The strong ethos of the company itself in this case produces an internal consistency, thus the environmental feedback loop is unlikely to be blocked by other feedback loops in the system.

Internal consistency also describes the theatrical playing dimension of Bartlett's 2010 play *Earthquakes in London*. A procession of short scenes jumps backwards and forwards in time through the life story of a climate change scientist and his family (three daughters, their dead mother and the scientist's future grandchild).²³² The carnivalistic style of the production, which makes liberal use of music and dance, playfully entertains first and foremost.²³³ However, the sensory style of Rupert Goold's production, which took place on an S-shaped stage snaking through the audience, had the effect of sugaring the pedagogical pill. The play is shot through with (and plays with) complex ideas such as chaos theory, system science and reincarnation, and the seemingly chaotic but in fact (as described in my 2012 *New Theatre Quarterly* article) highly structured narrative contains Lovelock's Gaian metaphor.²³⁴ Sensory and artistic levels in the production thus connect directly to the symbolic, signalling the hidden presence of the environment as a lived experience and thereby reinforcing the climate change discourse for the spectator.

Sometimes, the environment can unexpectedly intrude (see the definition of ecosystems in the Introduction) where this was almost certainly not intended by the production team. The December 2013 National Theatre production of Debbie Tucker Green's play *Nut* (directed by the playwright) provides a good example of an initially covert environmental discourse that seemed to me as a spectator to be as palpably present as it had been in *Mnemonic*, but in this case as a distraction calling attention away from the main storyline. Here, indeed, I thought the presence of the environment as a shapeshifter could be described as a stage invasion, potentially

²³² Bartlett, *Earthquakes in London* (London: Methuen Drama, 2010).

²³³ I saw this Headlong Theatre Company production on tour, on 3rd November 2011 at The Oxford Playhouse.

²³⁴ Hudson, "If You Want to be Green, Hold Your Breath. Climate Change in British Theatre", *New Theatre Quarterly*, 28 (2012), 260-71 (265-67).

subverting the production.²³⁵ On the surface this is a play about the relationship between dysfunctional families, destructive human behaviour and self-harm, thus having nothing to do with environmental politics. The cigarette is the highly sensory means by which self-harming burns are administered. The potential was there for spectators – all too aware of sitting in a pall of secondary smoke, wondering if actors had to self-harm (start smoking) to get the part, and perhaps also aware of The Shed as part of the redevelopment plan designed to ‘enhance [the NT’s] relationship with the environment around [them]’²³⁶ – to connect damaging human behaviour to environmental harm. It is doubtful that this sub-text was intended by the production team, but it was an unavoidable and highly effective ecotheatrical message for the ecocritical spectator uncomfortably aware of the key prop this production plays with – the lit cigarette.

Playing Culture

This is the aspect of the Diamond Model that unites the performer and the spectator as indispensable partners in the theatrical event.²³⁷ It is both internal and external to the theatrical event on stage in the sense that it is situated outside the theatre, but likely to shape what happens inside the theatre because all concerned in theatrical productions will bring that culture in with them. The playing culture extends to the wide range of events such as sports, music, court cases, or political debates that help set the tone for what happens on stage. Environmental, scientific or socio-political themes in play in the public domain are obviously theatrical in nature. At the time of writing they have been an aspect of the playing culture for some years because of the high profile of the climate change debate. Examples include the annual talks of the United Nations Framework Convention on Climate Change,²³⁸ media reactions to natural disasters such as Hurricane Katrina (2005), intermedia events such as the 2005-2006 Al Gore live roadshow and movie, and publicity relating to the drafting

²³⁵ Tucker Green, *Nut* (London: Nick Hern Books, 2013). *Nut* premiered in October 2013 at The Shed, National Theatre’s temporary replacement for the Cottesloe during refurbishment. I saw this production on 5th December.

²³⁶ ‘The Shed: About Us’ on the National Theatre website, at <theshed.nationaltheatre.org.uk/about-us#.UqRe3TIgGSM>. Accessed on 8th December 2013. This link no longer exists. The Shed was dismantled when the Cottesloe reopened as the Dorfman Theatre, in the Spring of 2014.

²³⁷ Sauter, 2004, p. 4.

²³⁸ UNFCCC (Undated). ‘Background on the UNFCCC: The International Response to Climate Change’, in *United Nations Framework Convention on Climate Change* <unfccc.int/essential_background/items/6031.php>.

of Intergovernmental Panel on Climate Change Scientific Assessment Reports. Such material unsurprisingly features in several of the climate change plays such as *Contingency Plan*, *The Heretic*, *Earthquakes in London* and *Greenland*. Each of these plays draws on this aspect of the playing culture in quite different ways.

The 2011 Royal Court production of Bean's climate change play *The Heretic*, directed by Jeremy Herrin, was noteworthy in setting out to be provocative.²³⁹ A possible reading was that Bean was setting up the two sides of the climate change debate (those arguing for and against anthropogenic climate change) in the audience in such a way as to enrage spectators on both sides. How he did this is explained in *New Theatre Quarterly*.²⁴⁰ He used several tactics. In the main narrative, a senior scientist shapes his departments' publications to attract funding (rather than to deliver good science); later, he puts this scientific wrong right by collaborating in email theft. The similarity this storyline bore to two real-life, but debunked, science scandals was designed to produce opposite reactions (rage, and mirth respectively) in audiences because of the polarisation at work in climate debate in the cultural context and playing culture outside the theatre. Bean also manufactured scientific theory to drive the plot, sometimes provocatively basing it on theories already (once again) debunked by science, thus seemingly promoting the views of climate deniers. Even though he clearly signalled the absurdity of the fiction, it was clear to me as a spectator watching other spectators that some spectators were taken in by this practical joke.²⁴¹ Anyone on either side of the argument, perhaps taking a cue from the play's title, could have laughed at the game Bean and the production team seemed to be playing. A message about ethics and scientific data could then have been read as critical of the quality of the science debate in the playing culture as well as the public domain more broadly, and supportive of good science properly used. I note that this theatrical tactic was only possible because of the embeddedness of climate change as a shapeshifter in the playing culture.

²³⁹ Bean, *The Heretic* (London: Oberon Modern Plays, 2011). The cast included Juliet Stevenson and James Fleet, and featured a contribution from Jeremy Paxman and the BBC Newsnight Team.

²⁴⁰ Hudson, 2012, 260-271 (267-70).

²⁴¹ I was sitting to one side in the back row. The stage lights threw light onto spectators' faces and the curving auditorium did the rest, providing me with a good view of facial expressions and other reactions.

Cultural Contexts

Sauter describes cultural contexts as 'fac[ing] towards the cultural, political, and social worlds, of which every theatrical event is part. It is simply not possible to imagine a theatrical event which would not belong to a specific socio-political context.'²⁴² The cultural context is external to individual productions in the sense that it is outside the theatre space in which they are performed. However, it is fundamental to theatrical events because it has a heavy influence on both production and reception. In the context of this thesis its importance is marked by the discussion in Chapter One. There, cultural alignments and misalignments were described as helping to shape the feedback loops at work in theatrical performances. In particular, the efficacy of individual theatrical events can be enhanced by skilful connections to aspects of the cultural context the audience can readily identify with. In the UK climate change plays this is sometimes done by foregrounding topical social narratives. Several of the climate change plays explore dysfunctional social behaviour in a manner designed to tease out potential societal root causes of environmental degradation in the context of powerful emotions. Hence, problematic family dynamics are at work in *Contingency Plan*, broken families are depicted in *Wastwater* and child abuse features in *The Weather* and *Wastwater*, and all of these themes can be identified in *The Skriker*. In some of the UK climate change plays, social themes can reasonably be described in Chaudhuri's term (but in reverse), as 'in the service of' ecotheatre.

Climate change science wrangles (several of them involving fraudulent behaviour) appear in climate change plays such as *The Contingency Plan*²⁴³, *Earthquakes*,²⁴⁴ *The Heretic*²⁴⁵ and *Greenland*.²⁴⁶ So well established is the climate science debate in the cultural context that it has its own short-hand. Calving icebergs, flooding events, scientific climate models in prototype or on computers, charts of CO₂ emissions and temperature, polar bears, and birds – were common climate change currency by the time the plays first appeared. Such 'docu-science' (a term I coined in 2012 to describe performative climate change paraphernalia) has

²⁴² Sauter, 2004, p. 12-13.

²⁴³ Waters, *The Contingency Plan: On the Beach, and Resilience* (London: Nick Hern Books, 2009).

²⁴⁴ Bartlett, 2010.

²⁴⁵ Bean, 2011.

²⁴⁶ Buffini, Charman, Skinner and Thorne, 2011.

taken on an iconic significance because of its frequent appearance in the public domain, in the media.²⁴⁷ Widespread media coverage of apocalyptic events such as Hurricane Katrina (2005) positioned them as possible evidence in the climate change debate;²⁴⁸ however some disputed that possibility, suggesting the seeming increase to be the result of better observation technology.²⁴⁹ Some documentaries (for example, *An Inconvenient Truth*)²⁵⁰ covered climate change in a theatrical manner, in such a way as to fuel the debate. Highly successful films such as *The Day After Tomorrow* and *Burn Up* also revolved around the climate change discourse. Collectively, the media thus influenced the playing culture and this in turn reinforced this aspect of the cultural context.²⁵¹

The four plays aforementioned and their productions used climate science in very different ways. The joint effect of the several theatrical events associated with them can be ‘understood as a process’ as much as a sequence of individual events. Moreover, every theatrical event has a socio-political aspect, both in relation to its content and the way it is presented’.²⁵² In the climate change plays a public debate in which science was being leveraged in good and bad ways on both sides of the argument appears in microcosm. Thus, climate change plays leveraging science are as socio-political as they are environmental. As such, they can be seen as an illustration of cultural change as an ecosystem, as shown in Figure 1.08 (p. 46). Their representation of social behaviour as a system of feedback loops implicated in environmental degradation can be described as ecoanthropocentric.

Contextual Theatricality

Contextual theatricality as defined by Sauter ‘is mainly concerned with the conditions within theatrical life, such as its organization, its working conditions, its genres, its aesthetic codes as well as its interior hierarchies’.²⁵³ It is both internal and

²⁴⁷ Hudson, 2012, p. 262.

²⁴⁸ The National Oceanic and Atmospheric Administration – NOAA (Undated). ‘Hurricane Katrina 2005’, in *Hurricanes in History* <<http://www.nhc.noaa.gov/outreach/history/#katrina>>.

²⁴⁹ John Roach, ‘Global Warming Link to Hurricane Intensity Questioned’, *National Geographic News*, 28th July 2006 <<http://news.nationalgeographic.com/news/2006/07/060728-hurricane-warming.html>>.

²⁵⁰ Gore, Narrator, *An Inconvenient Truth*, directed by David Guggenheim (Paramount Classics and Participant Productions, 2006).

²⁵¹ Roland Emmerich, Director and Writer, Jeffrey Nachamoff (Screenplay), *The Day After Tomorrow* (Twentieth Century Fox, 2004). Simon Beaufoy, Writer, *Burn Up* (Kudos Film and Television for the BBC, 2008).

²⁵² Sauter, 2004, p. 7.

²⁵³ Sauter, 2004, p. 12.

external to any given production or theatrical event. As earlier discussions of experiences such as the Arcola *Godot* suggest, this node of the model is particularly important in the context of this thesis. It captures the ecocritical conundrum encountered in that context, as well as the division between theatrical operations and aesthetics at work in the Theatrical Metabolic Chart. Contextual theatricality is itself a shapeshifter. It can introduce irony where none was intended, potentially undermining the ecotheatrical message. In combination with other nodes in the model it can help to identify reasons why the environmental shapeshifter is occluded, especially when said shapeshifter is on stage but blocked by another feedback loop in the system of the theatrical event itself. For the above reasons, this fourth section on the nodes of the Diamond Model is longer than the other three.

The inaugural production in the Classics for a New Climate series,²⁵⁴ the Young Vic's 2012 production of *After Miss Julie*, directed by Natalie Abrahams, is a thought-provoking production in this context. It focused on low-carbon theatrical operations – unlike the UK climate change plays, it did not thematise climate change on the stage itself. Neither the original *Miss Julie* nor the derivative *After Miss Julie* would necessarily be the first choice for an ecocritical play list even though the environment is present as a shapeshifter because of the plays' narrative arc, as I briefly discuss below. The aim of the Classics for a New Climate series was to 'achieve maximum pleasure and insight from the existing repertoire while also thinking about how it could involve less carbon'. Abrahams, interviewed by David Lan, said that she had suggested *After Miss Julie* for this inaugural environmental slot because 'the play's journey from dawn to dusk provides a neat challenge for an energy-low production style'.²⁵⁵ The environment thus shaped the choice of play text, but, on the other hand, this comment initially suggested a possible separation, similar to the one I experienced from the perspective of reception in the Arcola *Godot*, between theatre operations and aesthetics.

Not having seen the production myself, I reflected that some spectators might have been inclined to play with the prominence of low energy stage-craft in the

²⁵⁴ Sarah Hemming, *After Miss Julie*, Young Vic, London, Review, *FT*, 25th March 2012 <www.ft.com/content/7c27d436-74d1-11e1-ab8b-00144feab49a>.

²⁵⁵ Lan, 'Classics for a New Climate: how to produce a low carbon-footprint play', *Guardian Online*. 28th March 2012 <<https://www.theguardian.com/stage/theatreblog/2012/mar/28/young-vic-low-carbon-footprint-play>>.

metabolism of the production, known to them ahead of time because they were encouraged by email to bring layered clothing. Energy-related ideas connect readily to a text rich in embedded themes such as life-cycles, sexual energy, life, death, creation, destruction, chaos, conflagration and entropy. The informed spectator aware of the existence of two versions of the play might see a deep irony in the out-of-control explosion in society's lust for energy in the interval between *Miss Julie* by Strindberg (1888, first staged in 1889)²⁵⁶ and the second version of the play *After Miss Julie* by Patrick Marber (1996 and 2003),²⁵⁷ set in 1945 and staged in such a way as to contain energy demand within the production in 2012. From an ecocritical perspective the time-shift to 1945 in Marber's version of the play further enriches meaning, considering the acceleration of fossil fuel use in the post-war recovery as shown in Figure 1.04 (p. 39). The only solid conclusion I could initially come to without having been a spectator was that the potential for ecocritical spectatorial readings was present.

The opportunity to talk to Abrahami however threw further light on the production.²⁵⁸ She explained that the main aim of the Classics for a New Climate experiment (which was very important to the Young Vic) was to see whether it might be possible to deliver excellent theatre within the parameters set by the energy-low stage-craft. The intention was not to put an environmental statement openly on stage, because spectators generally do not go to the theatre for didactic experience. Nor can the production team control how spectators react. Nevertheless, the environment as a shapeshifter was subtly present for anyone minded to see it. This became clear as Abrahami explained an important piece of behind-the-scenes thinking: the shift to 1945 in Marber's play was thematically important because 1945 was (perforce) a time of make do and mend. Spelling this out further, Abrahami observed:

²⁵⁶ Strindberg, *Miss Julie*, trans. by Edwin Bjorkman (New York: Charles Scribner's Sons, 1913; New York: Dover Publications, 1992).

²⁵⁷ Marber, *After Miss Julie* (London: Methuen Drama, 1996, 2003).

²⁵⁸ Director Abrahami kindly agreed to answer my questions about the production. We initially corresponded by email then spoke on the phone on 26th January 2017. The contents of the discussion are used with her kind permission.

By choosing a play that was set during the scarcity of resources of the Second World War, we were encouraging the audience to make a link with their own time [...].

The frugal approach to staging therefore connected, within the theatrical ecosystem, to what was afoot on stage. The largest and most prominent prop – a big solid country-house table – was actually no such thing even though it looked just like one. As explained by Abrahami, this table was made up of re-used wooden scaffolding boards which could be taken apart and reshaped to some other purpose. This was in tune with one of the production goals – to leave nothing behind, thereby controlling waste as well as costs.

I also asked Abrahami if she thought changes to theatrical operations because of energy-saving parameters (as she preferred to call them) had knock-on aesthetic or theatrical effects. This question was answered in the affirmative in our conversation: the production only used objects that were vital to the show (such as the table). Abrahami observed that this ‘harnessed the imagination’, suggesting, therefore, that resource frugality had the power to enhance or intensify what was happening on stage. The imagination was also harnessed in other ways, after the event. Abrahami described the infographic walkway set up to show what had changed to make the show work within energy constraints. Spectators could therefore choose to watch the show without thinking about the environment, or they could in effect choose to reperform the show afterwards, remembering what they had seen, but this time contextualising it against what had happened behind the scenes in the name of energy-low stage-craft. There was therefore considerable scope, in the context of this production, for the on-stage and behind-the-scenes feedback loops to connect. This describes a subtle but unmistakeable fusion of operations and aesthetics, running counter to first impressions of occluded environmental feedback loops.

In the meantime, what had happened behind the scenes was important whether spectators were aware of it or not. Perhaps the biggest impact of the decision to work within a carbon budget was what happened to production deadlines, and this is that they had to be much longer than they usually are. As Abrahami explained, on the basis of her experience in this production, without the carbon budget, money can be used to save time. With the carbon budget, taking more time reduces costs and carbon emissions, and the energy- and resource-culture of the

entire production team must also change for as long as the budget is in force. She also observed that the experience changed some of the Young Vic's production practices (some of the low energy ideas were continued for all productions in the Maria Studio),²⁵⁹ as well as changing the way she herself now thinks about theatre production. In the context of the Diamond Model, I see this as a potentially significant change in the culture informing contextual theatricality, in this specific theatrical event. Looking beyond that, to the cultural context, however, an unanswered question is whether initiatives such as Classics for a New Climate are nevertheless trapped (without intent) in the existing system. In contrast to Arcola's zero carbon mind-set, a relative approach is taken to carbon emissions, in line with the targeted sixty percent reduction in CO₂ emissions from a 1990 baseline by 2025, mooted by the Mayor of London.²⁶⁰ If the idea of reducing CO₂ emissions from a baseline with the goal of maintaining the global average temperature change below two degrees as agreed during COP21 is indeed feasible, cultural entrapment is not a problem. However, I note the potentially problematic nature of the belief that the environmental shapeshifter can be controlled with such precision. An ecoanthropocentric perspective suggests this to be an unlikely idea considering that the environmental shapeshifter is an ecosystem (see the definitions in the Introduction), ultimately beyond the control of any individual entity.

In other productions, the approach taken to environmentalism is less subtle; whereas, in *After Miss Julie*, the Young Vic's production did not put the environmental shapeshifter in the limelight, in other instances, ecotheatrical playing entails consciously playing with the production's contextual theatricality with an intentionally ecotheatrical message directed at the audience. Such playing, which can have the effect of unbalancing the spectator, tends to intensify the theatrical experience, thus may enhance the efficacy in the delivery of the political message. However, this tactic can also backfire, and (I thought, as a spectator) did so in my

²⁵⁹ For this production, in the Maria Studio, 'the theatre manager relaxed the building management system temperature control to between 18-24 degrees and made use of natural ventilation. By doing this they saved thirty-four percent on their energy consumption during the run. Despite pre-warning the audience that they may require extra layers there were no complaints [...]. The Young Vic has now made these setting standard for the Maria Studio. See: Julie's Bicycle, *Sustainable Production Guide 2013*, p. 19. <www.juliesbicycle.com/files/sustainable-production-guide-final-2013.pdf>.

²⁶⁰ Mayor of London, *Green Theatre: Taking Action on Climate Change* (Greater London Authority, September 2008), p. 5.

next example, also a Young Vic production, directed by Richard Jones. David Harrower's 2013 play *Public Enemy*, a new version of Ibsen's play, breaks the fourth wall and (in effect) puts the audience onstage with the players, by turning the auditorium into a forum, in the key scene in which the Doctor addresses the crowd. The finger is pointed directly at the audience – unexpectedly cast into the role of protagonists. 'You are the enemies of truth. The majority. You.'²⁶¹ The aesthetic and political impact of this memorable scene, in which theatre audience becomes meeting crowd voting on what to do about the pollution in the spa was shaped, in this production, by the entrapment of the audience in traditional theatre seating under the accusatory glare of the full-on house lights. How effective was this uncomfortable power-play? It is possible it was effective, for some. For instance, the impact of this alienating scene may have been to make some feel frustrated or outraged at the accusation of stupidity, causing them to leave the theatre resolving to move for change. Theatre critic Michael Billington thought not. '[By] making the audience victims of Stockman's tirade, Jones's production also turns our passivity into endorsement. When Stockman asks: "Has anyone here a good word to say about politicians", I wondered what would happen if someone stood up, as I felt like doing, and saying, "Actually, yes"'.²⁶² Billington was as trapped as any other spectator in this difficult moment. However, the potential for dramatic tension to be undone was suggested by the ripple of chuckles I heard in reaction to the answer shouted out by another spectator on a different evening – the evening on which I saw the production: 'Yes, journalists!' All eyes moved briefly from Stockman to the speaker in a moment of comic relief, and the actor had to work hard to bring things back on course. Provocation seemed to be intended, yet the production – perhaps as trapped in convention as its spectators – was not ready for spectatorial 'action-readiness' to use Frijda's term. As a (potentially) shapeshifting ecosystem feedback loop, this tactic was not ecoeffective (see Definitions in the Introduction), perhaps because – unlike Stephens, Macmillan and Churchill – Harrower left no room for ecoanthropocentric mindsets potentially already present in spectators to see the point already present in the original play.

²⁶¹ Harrower, *Public Enemy* (London: Faber and Faber Limited, 2013), p. 58.

²⁶² Billington, *Public Enemy* – Review, Young Vic, London, *Guardian*, Tuesday 14th May 2013 <www.theguardian.com/culture/2013/may/14/public-enemy-review>.

In the ecotheatrical feedback loop depicted in Figure 1.13 on p. 64 (with ecotheatre at the core, driving all other aspects of the production), it is likely that the critical point in that system is Point C (audience reactions), from the perspective of live theatrical performances. This is where live theatre is most likely to be able to connect in such a way as to generate self-reinforcing feedback loops that reach beyond the immediate theatrical event because of the presence of spectators. This can be demonstrated by extending Figure 1.08 (p. 46), Hypothetical Ecocultural Change Imagined as an Ecosystem, as shown in Figure 3.01, where ecotheatre has been added and appears top right. This (inevitably incomplete) hypothetical system contains a number of pathways through which ecotheatre might be effective in its aim of bringing about change. As an ecosystem connected to other ecosystems, ecotheatre has the power to magnify ecoanthropocentric feedback loops (coloured blue), or to counteract environmentally damaging feedback loops (coloured orange). For this diagram to represent what is happening in any potentially ecotheatrical event, what is understated is the individual ecosystem each spectator (at Point C in the smaller theatrical ecosystem) brings with them, multiplying and potentially magnifying feedback loops in the overall system.

Figure 3.10: A complex flow diagram illustrating the interconnectedness of various actors and systems in the transition to a sustainable economy. The central node is 'CORE IDEA: PALPABLE ENVIRONMENTAL CONNECTIVITY'. Surrounding it are nodes for 'Regulatory design, Data collections, Catalysts' (A), 'Implementation, Production ecosystem' (B), and 'Cultural chemistry' (C). Other nodes include 'Traditional economic systems & markets', 'Eco-campaigns through the arts', 'ECOTHEATRE', 'Denial', 'Frugal approaches to infrastructure', 'Incumbent infrastructure', and 'Ecoinnovators'. Arrows indicate 'Positive feedback' (blue) and 'Negative Feedback' (orange).

The interactions diagrammatically represented above can be described as depicting the challenge of theatrical ecoefficacy discussed in the Introductory definitions. Theatre may not be unilaterally able to change the entire system because it is unlikely to project a sufficiently powerful feedback loops on its own. However, it could potentially undergo change as a system itself, and might also influence other parts of the system. This depends on the impact of positive feedback loops (in blue) becoming sufficiently prominent to over-ride the environmentally adverse feedback pathways.

As the discussion of the theatrical productions touched on so far in this thesis suggests, the possible range of spectator responses, traditionally analysed within the discipline of reception studies,²⁶³ is very wide. For specialist audiences, or those interested in a specific political agenda (such as homelessness, or green politics), theatrical efficacy might mean the delivery of a message. For others, efficacy might mean the sparking of debate and discussion around the issue in areas of the public domain, such as the media, or in political or academic circles. Other spectators might be looking for an intellectual or ethical challenge. Others might simply be there for the entertainment or the actor or the experience – an aesthetically effective treatment of any given issue. Still others might be there because live performances offer an opportunity to be subversive in ways the production team did not expect. Other audiences still might be looking for a close interactive chemistry with the creative team; or indeed may simply be there because, every so often, theatrical productions happen to deliver one of those rare iterative chain reactions between audience and production team described by Eversmann as the 'peak experience' in which the spectator is carried away, losing all sense of time because of their emotional and cognitive absorption in the event. Such experiences tend to be (says Eversmann citing a spectator) ““etched in [the] memory””.²⁶⁴

Thus, in the above discussion of theatrical events through the framework of the Diamond Model, the critical role played by aesthetics must also not be forgotten. Ecotheatre is likely to have its greatest possible impact as a generator of ecoanthropocentric virtuous circles if it works as theatre. This means connecting to the emotional feedback loops described by the theories of Frijda; and it also means

²⁶³ E.g. Sauter, 2010, pp. 241-63.

²⁶⁴ Eversmann, 'The Experience of the Theatrical Event', in Cremona et al., 2004, p. 139-174.

communicating effectively on several levels – sensory as well as aesthetic and symbolic level. It is not enough to thematise any social or environmental concern to connect to spectators. In a 1970s *Theatre Quarterly* interview republished by Simon Trussler in 1981, David Jones cited Gorky as director in the context of a production of *The Lower Depths*: 'To do a flat, grey "I will arouse the social indignation of the audience" production would be wrong. Gorky said to the Moskow Art actors [...] "You're all asking to be pitied, you're saying let's have a little kopek out of your charity. In fact, what you've got to do is frighten the audience and make them aware that there is an existence other than theirs."' ²⁶⁵ Without fear, there would be no impact, and, certainly, no hope of a peak experience for the audience. Evidence in support of this point was found in the context of theatre reception research by Sauter who describes reluctance on the part of the audience 'to discuss the play and its philosophical or human concerns' in the context of a negative performance evaluation, thereby describing a lack of potential theatrical (or ecotheatrical) efficacy when production aesthetics fail. ²⁶⁶

Ecotheatrical Efficacy – from Whose Point of View?

The idea that production aesthetics must work for ecotheatre to be effective is not, however, the end of the story, for circular processes have no end. It is therefore necessary to close the loop in this discussion by returning to a key question for the environment on stage as a shapeshifter. This is whether any positive outcomes from aesthetically effective productions, such as *The Skriker* and *Wastwater*, might be over-ridden by the cultural context they and, indeed many other theatrical productions are, in effect, trapped in. Offsetting that pessimistic possibility is the potential power of ecotheatricality as a broader movement in the playing culture and cultural context. Perhaps the combined weight of a dozen or so UK climate change plays within a decade, together with the efforts of other organisations in the field of ecodata. Of particular note here is the substantial database of environmental reporting building up under the auspices of Arts Council England: since 2012, environmental reporting has been a requirement of ACE's funding programmes. ²⁶⁷

²⁶⁵ Jones, 'On Directing Gorky', in *New Theatre Voices of the Seventies: Sixteen Interviews from Theatre Quarterly 1970-1980*, Trussler, ed. (London: Methuen, 1981), pp. 36-45 (p. 45).

²⁶⁶ Sauter, 2010, p. 247.

²⁶⁷ Arts Council England and Julie's Bicycle, *Sustaining Great Art: Environmental Report 2012-5, Results and Highlights* (ACE, November 2015).

In this endeavour they are supported by the green theatre company known as *Julie's Bicycle*, an organisation that supports the creative industries efforts to 'embed environmental sustainability' into their operations'.²⁶⁸ All of this, put together with the activities of 'green' theatre companies such as the Arcola or Simple8²⁶⁹ or cycling theatre companies such as the HandleBards (See Chapter Six), might amount to a movement strong enough to influence some of the feedback loops in the broader ecosystem. Thus, the discussion returns full circle to the idea of alignment, represented in Figures 0.02 (p. 18), 1.06 (p. 42) and 1.07 (p. 44). Aesthetically effective ecotheatre aligned with an ecoaware cultural context and playing culture is likely to be highly ecotheatrically effective, in the sense that it is helping to propel forwards a much-needed cultural change in the form of an ecoanthropocentric runaway feedback loop. The prospects, in terms of ecotheatrical efficacy, for productions in which the context is misaligned with the production or the production out of line with the context, are ambiguous. Theatrical events conceived with no ecotheatrical message can nevertheless deliver such a message, and theatrical events conceived with the aim of delivering an ecotheatrical message can fail to do so – especially if the production's contextual theatricality mirrors the nature/culture divide at work in the cultural context.

Exploring such ideas further, I want to conclude this chapter with a comparison of two climate change plays – *Greenland* and *Lungs*. As an individual spectator, I experienced the first as a less effective piece of ecotheatre precisely because it seemed to me to mirror the cultural context it was purportedly campaigning against. I experienced the second as one of the most outstanding peak ecotheatrical experiences described in this thesis. Notwithstanding my quite different reaction to them, the presence of the environment as a shapeshifter must be acknowledged in both cases, in a salutary reminder of the potentially ambiguous effects of ecosystems.

Greenland: Trapped in the Nature/Culture Divide

The 2011 climate-change play *Greenland*, a play by four authors commissioned by the National Theatre with the stated intention of raising the profile of climate change

²⁶⁸ Julie's Bicycle, 'What We Do' <www.juliesbicycle.com/about> [Last accessed 30th March 2017].

²⁶⁹ Dudley Hinton and Sebastian Arnesto, 'Act Now: Can Theatre Help with Climate Change?', *Guardian*, 19th May 2011 <<http://www.theguardian.com/stage/theatreblog/2011/may/19/theatre-green-sustainability>>.

in the public domain, was emphatically ecotheatrically political with intent. This was reinforced in several ways. As we spectators waited in our seats for the performance to begin, climate change comments made by public figures such as the government's Chief Scientific Advisor, with respect to the urgency of the climate change problem, were projected onto the fire curtain. Several climate change events, such as panel discussions featuring prominent public figures, were organized to take place before and after performances. The production was thus in tune with the public environmentally engaged position of the theatre itself in adopting the stance of climate change campaigner. In the context of the Diamond Model this could be described as an alignment of the contextual theatricality of the company with ecopolitics in the cultural context, as well as ecopolitics in the playing culture as represented by political and media events.

The most striking point about director Bijan Sheibani's production from my perspective as a spectator was its sense of chaotic urgency. This was not an inappropriate effect considering the environmental subject-matter and the intended urgency of the message. However, the production gave the impression that the four authors had shared out the different narrative threads, then woven them together, perhaps as a committee. The sense of incoherence that seemed to me to arise from the number of authors involved in the play was not a problem for all spectators – I noted that the short attention-span needed to follow each scene made it fun to watch for families with children. However, this structure also meant that none of the storylines could be followed in depth, resulting in a superficiality that did not (I felt) enhance the credibility of the whole. My experience, described in terms usually applied to ecosystem feedback loops (see the definitions in the Introduction), was that the production produced an oscillating spectatorial reaction, thus was not entirely unsuccessful, but I was not carried away by it. The best material came in the form of striking moments often produced by props or special effects rather than the narrative. In the context of the comically-depicted chaotic Copenhagen climate talks of 2009, I still recall clearly the huge thuds, as weighty tomes of documentation (hinting at a profligate use of paper and a horrifying work-load) were dropped from a great height onto the stage. In another striking scene, the thrill of science work in the Arctic was beautifully communicated through the huge flock of birds spectacularly

delivered through a trick of lighting. This was theatrical playing in a spectacular playing culture.

The complex production, characterised by technology-driven scenography and frequent, energetically executed scene changes, was well-suited to high-ceilinged well-equipped proscenium arch configuration of the Lyttleton. Overall this climate-change campaigning production of *Greenland* was delivered as a spectacle, with all the thrills, spills and special effects this implies. It featured activist high-wire acrobatics, a lethargic polar bear and a simulated helicopter that showered the audience with 'snow' (play scripts recycled as confetti in which morsels of adult language had distractingly managed to survive the cutting process). Coming full circle to the contextual theatricality node in the Diamond Model, the resource-heavy production suggested to me an internal culture (or perhaps a fixed physical infrastructure) at odds with the production's ecotheatrical intent. This production thus put across a mixed message: it conveyed the urgency of the need to act on climate change yet suggested this might be done without changing the resource-intensity of the contemporary playing culture.

Unimpeded Feedback Loops in Paines Plough's *Lungs*

By means of his initial stage directions, playwright Macmillan directs that *Lungs* be played on a bare set with no help from scenery, furniture or props, thus, like *After Miss Julie*, this is an energy-low production.²⁷⁰ The Roundabout, a beautifully designed portable auditorium – an economical 'wooden O' as Shakespeare put it in the Prologue to *Henry V* – provides the perfect set for the climate-change play seeking to be unburdened by extraneous grams of CO₂. *Lungs* is a conversation between two people – M and W. In the intimate space of the Roundabout the actors were so close to the audience, wherever seated, that body-language could be read in detail. Every embodied reaction of the players – shocked gasps, breath indrawn in pain, suppressed sobs, falling tears, uncomprehending silence – was intimately shared, and this closeness forged a strong spectatorial empathy with the couple. An important strength of the play is Macmillan's writing – actors speaking his lines mimic the rhythms and patterns of every day speech as people deal with their daily life concerns, fears, and longings. The couple squabbled ridiculously in the Ikea car

²⁷⁰ Macmillan, 2011, p. 22.

park about having a baby (carbon-intensive car-engine running as they talked), heartbreakingly suffered a miscarriage, broke up, crashed back together, unintentionally produced the Eiffel tower in lifetime carbon emissions (the baby), and, eventually, in the course of lives that passed in the blink of an eye, wrecked the planet. The performance of the two actors forged an intense emotional crucible, a pressure cooker of emotions physically represented by the shape of the tiny stage, and further marked out by a deliberate, circular choreography in the blocking. In the two performances that I have seen – the premier in London, and the 2015 Edinburgh Festival production – returning to the outside world was a shock, after such an intense experience.

What is interesting about the stage itself is the part it palpably played in the delivery of a lived experience of planetary wreckage. Operationally speaking it is designed to permit touring performances with no need for a theatre infrastructure to be in situ, and Macmillan's stage directions ban anything that could be extraneous to the dialogue. The act of so visibly embedding the shape of the stage itself in the emotional maelstrom neatly connects 'green' theatrical operations to aesthetics. This production thus puts centre-stage and openly resolves the quandary encountered in earlier discussions of the *Arcola Godot* and *After Miss Julie*. From my perspective as a spectator, the performances of *Lungs* I saw were a good example of Eversmann's peak theatrical experience in the context of (pace Schechner) a complex ecological interweave. Emotionally speaking, *Lungs* as delivered by Paines Plough in the Roundabout is a runaway warming system, and as an ecosystem, it is fully aligned with the intended ecotheatrical message. It does not preach, but combines the phenomenological experience of the disastrous relationship with the lived experience of planetary catastrophe, and the whole is magnified by ecological design of the stage. The imperfection of the two protagonists – ecoaware yet unable to extricate themselves from their consumerist existence – is a metaphor for the culture that needs to change yet carries on regardless while the planet burns. However, because the production forges such strong emotional reactions this play delivers far more than a metaphor. Like the 2015 production of *The Skriker*, and the Royal Court production of *Wastwater*, the Paines Plough *Lungs* delivers the nature/culture divide as a lived experience. As an ecoanthropocentrically-

constructed theatrical ecosystem the whole is a powerful emotional shapeshifter, thus has structurally embedded in it the potential to be highly ecoeffective.

Chapter Three in Summary: A Story of Seemingly (but Not Always) Occluded Ideas

This is a chapter about lived experiences and feedback loops. The Diamond Model is a product of the lived experience of idea generation, and was conceived, in turn, for use in the context of the lived experiences of theatrical events. The most important point, in this chapter, through this discussion of the Diamond Model, is that the invisibility of any shapeshifter, including but not limited to the environment, does not necessarily imply occlusion. Ideas from disparate fields such as phenomenology, semiotics and psychology can be seen to run through the several feedback loops in the model. Although ecologies, feedback loops and ecosystems were rarely directly discussed during its formation, they were inevitably present. Any of the ideas arising from these fields can be occluded (blocked or interrupted) in the presence of the divides discussed in Chapter One. Similarly, the environment as a shapeshifter can be blocked by divides running through theatrical events. Ecotheatrical efficacy is about connecting to feedback loops having the potential to override such divides; and theatre ecocriticism is the ecoanthropocentric art of discerning such divides as shapeshifters in production and reception, always recognising that circularity and obliquity might mask what is really happening.

Part Two

Introduction to Part Two

From the point of view of spectators, theatrical performances can have the same basic characteristics as global warming. Their effects spread around all corners of the auditorium, and connect to the outside world through further feedback loops in the minds of spectators. With apologies to Nordhaus, if you have mastered the externalities of global warming as described by climate scientists (including the difference between an oscillation in a stable system and a regime shift in a runaway warming phase) you have understood the basic workings of effective theatrical performances. For global warming, whether its externalities are good or bad is context-dependent.²⁷¹ Similarly, the externalities of effective ecotheatre have the potential to be either beneficial or harmful from an ecoanthropocentric perspective. In the context of the live theatrical performances discussed above, this produces a seeming paradox, which collapses when the ecoanthropocentric perspective defined in the Introduction is applied. An ecoeffective theatrical production may need to behave like a runaway (e.g. warming) ecosystem to have any chance of producing a cultural shift away from societal behaviour designed to destabilise ecosystems. In other words, positive (ecothatrical) feedback loops may be needed to produce negative (environmentally stabilising) feedback loops. A human behaviour that tends to be a harmful shapeshifter of the environment could thus also become a constructively ecoeffective shapeshifter of resource-intensive cultural norms in some other contexts.

Ecotheatrical Perspectives Explored in the Next Four Chapters

Each of the next four chapters provides a slightly different perspective on the practicalities of measurement puzzles and the ecotheatrical efficacy conundrum discussed in Part One. Chapter Four focuses specifically on theatrical productions of plays that did not necessarily intend to thematise or problematize the environment, but in which it was inevitably embedded because of the presence of dearth as an

²⁷¹ Shakespeare was writing during a cooling oscillation, for example, and this had adverse effects on food security, as discussed in the chapter on the dearth plays. See Jean M. Grove, *Little Ice Age* (New York: Routledge, 1988, 2008), Figures 12.14 and 12.15: 'Abandoned farmland and lowered climactic limits to cultivation in South East Scotland, AD 1300-1600 and AD 1600-1800'; and the interpretation of the charts at loc. 8390, which refers to 'a zone which became sub marginal between 1530 and 1600'. While this refers to Scotland rather than the Midlands or London, it is likely a similar pattern of lower agricultural productivity was also observed further south.

actant (thus an agent with efficacy) in those productions. The first half of the chapter sets up the conditions for an experiment. The second half of the chapter implements the experiment by excavating threads of ecotheatrical meaning in the production history of an important dearth play, Shakespeare's *Coriolanus*, with a view to assessing production coherence.

Chapter Five, which focuses on theatrical productions as staged reactions to natural disasters (thus providing evidence running counter to the idea of environmental occlusion on stage), connects to Frijda's idea of long-range emotional processes (feedback loops) capable of introducing an element of ecotheatrical efficacy in unexpected ways. It is highly likely that environmental disasters (where the environment as an actant is palpably present) have long-range effects. A short case study towards the end of the chapter considers what may, with time, turn out to be such an effect. This is the aforementioned thespian spectatorial challenge directed at the contextual theatricality of the Royal Shakespeare Company in 2012 by a campaigning group calling itself BP or Not BP.²⁷² This organisation helped to 'expose the practices of a corporation that sought to benefit from affinity with' the name of William Shakespeare and indeed the RSC.²⁷³ The protest (a case of ecotheatricality with intent in the stage invasions of nonecotheatrical productions in which the nature/culture divide ironically seemed to be present as an actant) is still under way and continues to develop at the time of writing, six years on from the catalyst disaster.

Chapter Five includes and Chapters Six and Seven focus wholly on productions that are ecotheatrical with intent. In Chapter Five, *Waiting for Godot*, by Beckett – a playwright whose plays were described by Chaudhuri as suffering environmental occlusion (see Introduction) – is identified as a work that has appeared at regular intervals in post-natural-disaster theatrical productions, in communities most affected by catastrophes such as the Deepwater Horizon oil

²⁷² The first name of this group was the Reclaim Shakespeare Company. It was later changed to BP or Not BP, most probably because the campaign is not just about the sponsorship of Shakespearian theatre, but about the sponsorship of the arts by big oil companies.

²⁷³ Susan Bennett, 'Sponsoring Shakespeare', Ch. 9 in *Shakespeare's Cultural Capital: His Economic Impact from the Sixteenth to the Twenty-first Century*, ed. by Dominic Shellard and Siobhan Keenan, (London: Palgrave Macmillan, 2016), pp. 163-179 (p. 172).

spill,²⁷⁴ and tsunami-induced nuclear melt-down at the Fukushima Daiichi power plant.²⁷⁵ The stage-invasions of BP or Not BP also fall into the category of ecotheatre with intent, and if the productions targeted by them were not intentionally ecotheatrical, the stage invasions introduce the possibility of their becoming so, albeit in ironic ways. Chapter Six continues the discussion of contextual theatricality in the context of the ecotheatrical ecosystems discussed in Part One, focusing on a theatre company that puts the bicycle at the environmental core of its theatrical operations and aesthetics, thereby shifting the entire ecosystem of the theatrical event. Chapter Seven focuses on the reception of a climate change play that came to the stage in 1994, and of its revival in the lead-in to the 2015 United Nations Framework Convention climate change talks (COP 21). As such, this chapter also explores the ecotheatrical potential of putting planetary ecologies at the core of a production. In addition, the potential for the efficacy of ecotheatre with intent to be magnified by changes in the cultural context and playing culture nodes of the theatrical ecosystem is explored in this chapter.

All the material in Chapters Four through Seven is potentially relevant as ecodata in the context of ecotheatrical efficacy. However, Chapters Six and Seven engage directly with the idea of ecodata discussed in Chapter One, in seeking evidence of emotional and cognitive feedback loops and warming systems in spectatorial reactions.

²⁷⁴ See Anonymous, 'Mapped: eco-impacts of the BP Oil Spill', 8 February 2012 <www.bbc.co.uk/news/specialreports/oildisaster>.

²⁷⁵ Justin McCurry, 'Five Years On, Cleanup of Fukushima's Reactors Remains a Distant Goal', *Guardian*, 11th March 2016.

Chapter Four. An Ecotheatrical Perspective on Dearth in Performance

Ecotheatre is defined in this thesis as theatre in which the presence of the environment as a shapeshifter is discernible in the overall structure of the theatrical event, in production or reception, or both, within the theatre events ecosystem as depicted in a simplified form in the Diamond Model. This chapter develops earlier alignment discussions: theatre can be ecotheatrical with or without intent because what happens in any theatrical event is not fully controlled by an individual party. The environment as a shapeshifter may be determined by social or environmental movements at work in the cultural context, playing culture, contextual theatricality or all three. The presence of the environmental shapeshifter may not always be obvious at first sight thus the job of the theatre ecocritic is to identify it and explore potential meanings.

The Environment as a Shapeshifter in Dearth Plays: Present or Absent?

This chapter touches on plays and productions that might not, at first sight, be described as ecotheatre. Yet, because of thematic content in the plays considered in the chapter there is little doubt that the environment is on stage as more than mere scenery. This chapter is therefore about the occlusion or otherwise of ecological meanings in theatre in general, and it is also about cultural change. To illustrate the point, I return to Olivier's 1983 *Lear* (see Chapter Two) and consider what newly-fledged ecocritic Black may have seen, in 1989, in the last play he would have suggested putting on an ecocritical reading list. What struck me about the opening scene, as I watched the DVD in 2016, was how clear it was that this was a staged performance, and how unnatural the environment as scenery was.²⁷⁶ There was not a tree in sight. Undefined stone arches reminiscent of Stonehenge loomed out of the mist. The King's throne was situated in a strange hybrid space. The uneven path up to the throne seemed to be made of rocks shaped by the elements rather than by any human hand, and Olivier as Lear had to move up and down them with care, giving him an air of instability and infirmity. Whether intended or not, the set thus seemed to me to be readable as a fusion of nature and culture. The environment as a

²⁷⁶ Angus Fletcher comments on a similar contradiction: 'Romantic critics delighted in noting that the disasters of the play could all be traced to crimes against nature [...]. [B]ut in performance the play's artificiality was painfully exposed,' in *Evolving Hamlet: Seventeenth-Century English Tragedy and the Ethics of Natural Selection* (New York: Palgrave Macmillan, 2011), p. 123.

shapeshifter entered yet again in the guise of a map of England's fertile land made of animal skins, which was dramatically unfurled over a large area of the stage. Regan and Goneril trod possessively upon it. Regan followed her father's command – the finger pointing down at the map – and fawningly kissed it. Goneril moved to kiss her father's hand but thought better of it and kissed the map, then his hand. Lear strode around upon it, mapping out divides with the point of his sword. As the Skriker might have said on behalf of social and environmental ecologies so carelessly cut into pieces, recalling that nature and culture are inseparable from each other, ecologically speaking: 'Now they hate us and hurt hurtle faster and master!'²⁷⁷

This chapter is a thought-experiment about theatrical productions in which the environment is at first sight occluded – in the sense that it is hidden, or blocked, or both. It takes its cue from Black, who had not previously 'seen' the environmental shapeshifter yet now could, even though the only thing that had changed was the context in which he saw it and the thinking he brought to his second viewing of the recording. In the first stage of the experiment, my aim was to thus identify a play or plays in which the environment is known to be present as a shapeshifter in the text, as it is in *King Lear*. Next, I wanted to examine what happened to the environment in such plays in productions in completely different cultural contexts. The research question in that new context is whether the environment is present as a force that shapes the production, to an extent that might be expected, or whether it is occluded – at the core or alternatively cut, minimized or blocked. Thus, this chapter is thus also an experiment in evidence-gathering for the bigger question of ecotheatrical efficacy. In the following paragraphs, the parameters of the thought-experiment are set up.

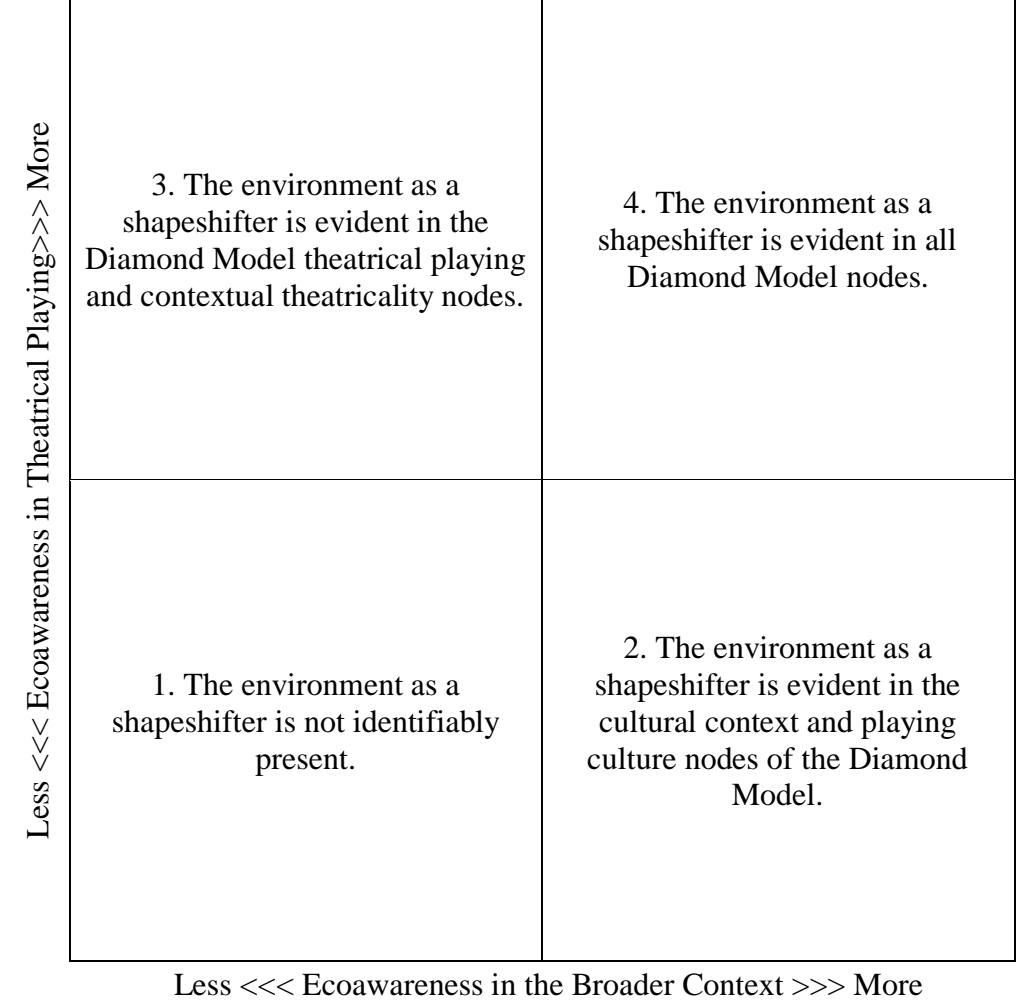
Setting Up an Ecotheatrical Thought Experiment

Figure 4.01 corresponds to four hypothetical productions of a hypothetical play in which the environment would be expected to be present as a shapeshifter because of the content of the hypothetical play text. This diagram positions each of these productions in the alignment/misalignment matrix discussed in the Introduction (Figure 0.02, p. 18). In Quadrant Four, the environment as shapeshifter runs through

²⁷⁷ This modern-day perspective might be underpinned by the context in which *Lear* was written and first performed. For Robert N. Watson, for example, the play demonstrates 'how agonising the shifting definitions of nature could become'. See *Back to Nature: The Green and the Real in the Late Renaissance* (Philadelphia: University of Pennsylvania Press, 2006), p. 78.

every aspect of the theatrical ecosystem as configured in the Diamond Model – cultural context, contextual theatricality, theatrical playing and playing culture. All aspects of the theatrical event ecosystem as represented in the Diamond Model can be described as aligned. In Quadrant One, it can also (ironically) be said that every aspect of the theatrical ecosystem is aligned, but this is potentially a self-reinforcing feedback loop pushing in a destructive direction for the environment. The theatrical ecosystem runs against the environment even if the hypothetical play text thematises the environment and the environment as a shapeshifter should be present. Thus, the environment as a force that has efficacy in a constructive sense can be reasonably described as occluded in hypothetical productions represented in Quadrant One. However, occlusion in this sense does not preclude the presence of active (thus, unoccluded) adverse feedback loops. The term ‘absent’ is thus potentially a misnomer.

Figure 4.01: The Environment as a Shapeshifter – Present or Absent?



The profile of Quadrant Three is consistent with ecotheatricality with intent on the basis of the high ecoawareness of those directly involved, however less awareness in the cultural context or playing culture potentially suggests that the message may not come across as effectively as might be expected. In Quadrant Two, the reverse is the case. The environment is present as a shapeshifter in the broader context represented by the playing culture and cultural context nodes of the model, but not present (other than unintentionally) on stage. Some of those involved in such theatrical events may potentially make ironic connections between themes in the play and a potentially resourcist culture at work in the event, or alternatively may identify an element of cognitive dissonance in the production or its reception.

For this thought experiment to be possible, three kinds of raw material are required. These are: at least one play in which the environment as a shapeshifter was discernibly present when it first came to the stage; any play meeting the first requirement also needs to have been performed at intervals in sufficiently different cultural contexts. Thirdly, a reasonable amount of archival material needs to be available with respect to such productions.²⁷⁸ During my search, it also became clear that when the environment or its effects are on stage in a physical sense it is more readily identifiable in performance. My searches eventually identified early modern plays and their modern productions as fulfilling the first two requirements, and dearth (famine or food insecurity in modern parlance) as a social phenomenon in which the environment as a shapeshifter could not be more palpable. I identified *Coriolanus* as Shakespeare's most important dearth play, notwithstanding the fact that other plays also thematise the topic.²⁷⁹ For *Coriolanus*, I also found a significant amount of archival material at the Shakespeare Birthplace Trust (SBT) Library and Archive in Stratford upon Avon, and in Kristina Bedford's richly

²⁷⁸ As a 'body of texts which are governed by their own narrative laws and conventions' archival material has limits as 'the half-glimpsed truth' of past productions. (Robert Shaughnessy, *Representing Shakespeare* (New York: Harvester Wheatsheaf, 1994), p. 33. I note that theatre reviewing (which I refer to frequently in Part Two) is positioned within the fusion of production and reception that characterises theatrical events. The very narrative laws and conventions that shape them are relevant to the positioning of the environment as a shapeshifter on stage.

²⁷⁹ See Ayesha Mukherjee, who refers to Hindle's reading of *Coriolanus* as a 'staging of debates about causes of dearth', in *Penury into Plenty: Dearth and the Making of Knowledge in Early Modern England* (Abingdon: Routledge, 2015), p. 15. See Steve Hindle, 'Imagining Insurrection in Seventeenth-Century England: Representations of the Midland Rising of 1607', *History Workshop Journal*, 66 (1), 2008 (21-61).

textured account of Peter Hall's 1984/5 production,²⁸⁰ combined with the National Theatre Archive in London.

Experimental Parameters with Dearth as a Proxy for the Environmental Shapeshifter on Stage

The aim of the research project in this chapter is to consider how dearth plays out in performance in modern productions of early modern plays, and what this says about the positioning of the environmental shapeshifter on stage. In the following paragraphs, I set up the conditions that should work in favour of this experiment if they are present. In brief these are as follows.

Table 4.01: Exploring Conditions that Might Put Dearth on Stage in Modern Productions of Early Modern Dearth Plays

Question	Experimental Rationale
Is dearth (famine or food insecurity) present in the modern-day playing culture?	If dearth is (in effect) staged in other modern-day contexts, outside the theatre, Frijda's theories suggest it to be more likely it will be found inside the theatre also.
Was dearth an important aspect of the early-modern cultural context?	As discussed in Chapter Three, if/when dearth is an important and emotional daily-life concern, it is more likely to have a strong presence on stage and in play texts. If it has a strong semiotic and/or phenomenological presence in the original play text, it is more likely to be present in later productions.
What role did dearth play in early-modern theatrical playing? Was it strongly thematised?	If dearth was strongly thematised in the original play or production it is more likely to be present in modern productions.
Is there any overlap between the early modern and modern cultural contexts in terms of dearth-related sensitivities?	An overlap in sensitivities should make it more likely that dearth will not be occluded in modern productions.
Does dearth appear on stage in modern times, in the theatrical playing node of the Diamond Model?	If dearth can be found to be in performance in other plays or productions, it should be less likely to be occluded in the modern productions of early-modern plays in focus here.

²⁸⁰ Bedford, *Coriolanus at the National*. "Th'Interpretation of the Times" (Selinsgrove: Susquehanna University Press; London: Associated University Presses, 1992).

Dearth should ideally already be present as a theme in the modern-day playing culture node of the Diamond Model so that it may be more readily recognized on stage. It needs to have been an important aspect of the early modern cultural context so that it is strongly thematised in play texts. There should ideally be commonalities in early modern and modern cultural contexts in terms of the positioning of dearth so that the early-modern context is more readily understood by modern spectators. Finally, it should be possible to identify other modern-day plays in which hunger or dearth is thematised so that those involved in theatrical events are already warm to the idea of dearth on stage. In the following paragraphs, I take these five questions in turn.

Food in the Modern-Day Playing Culture

If food insecurity appears regularly as part of the modern-day playing culture, this makes it more likely that dearth, having been thematised in the original early-modern production or play text, will also be a part of modern performances. Thus, if dearth is absent where it would be expected to be present for two reasons (because it is thematised in the play and theatrically-framed in real life), this could be seen as potentially quite striking evidence of environmental occlusion. There is enough evidence to suggest that in modern times, the social politics of inequality and hunger are regularly present in the aforementioned playing culture, largely because there are many examples of eye-catching real-life events theatrically delivered through the media. Michael Buerk's well-known eyewitness account of the 1984 Ethiopian famine (potentially an important contextual event later on in this chapter for one of the *Coriolanus* productions) was highly effective in triggering a measurable response in the form of financial and food aid.²⁸¹ Much later on pictures of the after-effects of Hurricane Katrina showed New Orleans residents stranded on rooftops, disconnected from societal support systems such as food and water.²⁸² The years after the 2007 credit-crunch witnessed regular media broadcasts concerning the growing number of

²⁸¹ Ada Edemariam, 'The Saturday Interview: Bob Geldof', *Guardian*, 12th February 2011. See also Buerk. 'Ethiopian Famine' (BBC on YouTube, 1984) <<https://m.youtube.com/watch?v=XYOj6OYuJc>> [Last accessed 2nd April 2017. Unstable link].

²⁸² Mary Gail Snyder, 'It didn't begin with Katrina', (US) *National Housing Institute, Shelterforce Online*, 143, September/October, 2005 <www.shelterforce.com/online/issues/143/beforekatrina.html>.

food banks in UK,²⁸³ as well as the unequal socio-economic fates of countries in the European Union, Greece being a case in point.²⁸⁴

The stark facts of famine or hunger not only have the power to evoke a strong emotional response in people (see the discussion of Frijda's work on the emotions in Chapter Three). But they also, as discussed in the definitions section in the Introduction, may potentially shape their behaviour by becoming an important feedback loop in amongst the flows of energy, matter and ideas in the ecosystem of the theatrical event. (This may also be an example of connectivity between the playing culture and theatrical playing nodes in the Diamond Model.) The impact of the aforementioned account by Buerk of the 1984 Ethiopian famine (caused by drought and exacerbated by war) is another good example. This media event – a factual seven-minute report that dramatically illustrated the meaninglessness of second hand clothing donations handed out to a few people in the crowd of thousands waiting for help that day – had a strong impact on aid agencies and governments round the world, to judge by what followed. It prompted Bob Geldof and Midge Ure to write 'Do they know it's Christmas', to help call attention to the disaster. This led to the 13th July 1985 Live Aid concerts, just nine months on from Buerk's report. These events raised a significant amount of money and sparked a movement of other similar concerts in later years.²⁸⁵ Buerk's report raised awareness of the problem in terms people could connect to in their daily lives, and thereby triggered a meaningful and quantifiable response in the sense that in financial terms it achieved far more than a seven-minute documentary report would normally be expected to do. Recalling the theories of Frijda, dearth appears to be present in the modern-day playing culture as a 'daily life concern', thus may potentially become a powerful shapeshifter on stage.

²⁸³ Hannah Lumbie-Mumford, Dan Crossley, Eric Jensen, Monae Verbeke, Elizabeth Dowler, *Household Food Security in the UK: A Review of Food Aid*, DEFRA-funded Report (University of Warwick and Food Ethics Council, 2014), February. See Conclusion One on the steadily increasing demand for food aid.

²⁸⁴ Theodore Mitakos, 'Inequality, Poverty and Social Welfare in Greece: Distributional Effects of Austerity', Working Paper, Economic Research Department, Special Studies Division (Bank of Greece, 2014) <www.bankofgreece.gr/BogEkdoseis/paper2014174.pdf>.

²⁸⁵ BBC, 'LIVE AID 1985: How it All Happened', BBC, archived material on: <www.bbc.co.uk/music/thelive8event/liveaid/history.shtml>.

Dearth in the Early-Modern Cultural Context

Dearth was prominent in the early modern cultural context. It is a matter of record that harvest failures and commodity price volatility were frequent in England in the late 1500s and early 1600s.²⁸⁶ For the purposes of the thought experiment at work here, it is highly unlikely that food security is not woven into the fabric of dramatic works written at times of dearth, prompted by harvest failure, malnutrition, sickness and outright starvation that were inevitably embedded in the cultural context. As described by Peter Clark, from the 1590s onwards harvest failures were frequent (particularly between 1586-7, 1597-8 and 1622-3) and poverty became 'particularly severe' between 1598 and 1601 even as the better off could trade in grain markets:

English towns in the 1590s suffered from three principal if interacting pressures: harvest failure, plague, and overseas war. Following the dearth of 1586 the subsequent harvest years were tolerably good and those of the early 1590s attained near-glut proportions. But after 1593 there was a succession of climactic and agricultural disasters.²⁸⁷

The impact of these harvest failures on the population at large can be understood graphically. In Figure 4.02, a small extract of the historical data compiled by historian Joan Thirsk is plotted to illustrate the price-squeeze suffered by labourers on relatively fixed wages facing the consequences of commodity price volatility.²⁸⁸ The average prices of four grains (wheat, barley, oats and rye) are indexed to 100 in 1584. Similarly, Southern English wage rates for agricultural labourers and building craftsmen are indexed to 100 in the same year.²⁸⁹ It should be noted that Thirsk tabulates grain prices annually, and wages only for each decade, so it is quite possible that this chart is overstating the parlous situation people could find themselves in when grain prices rose and their wages failed to follow; however, it seems safe to assume that wages would be relatively static.

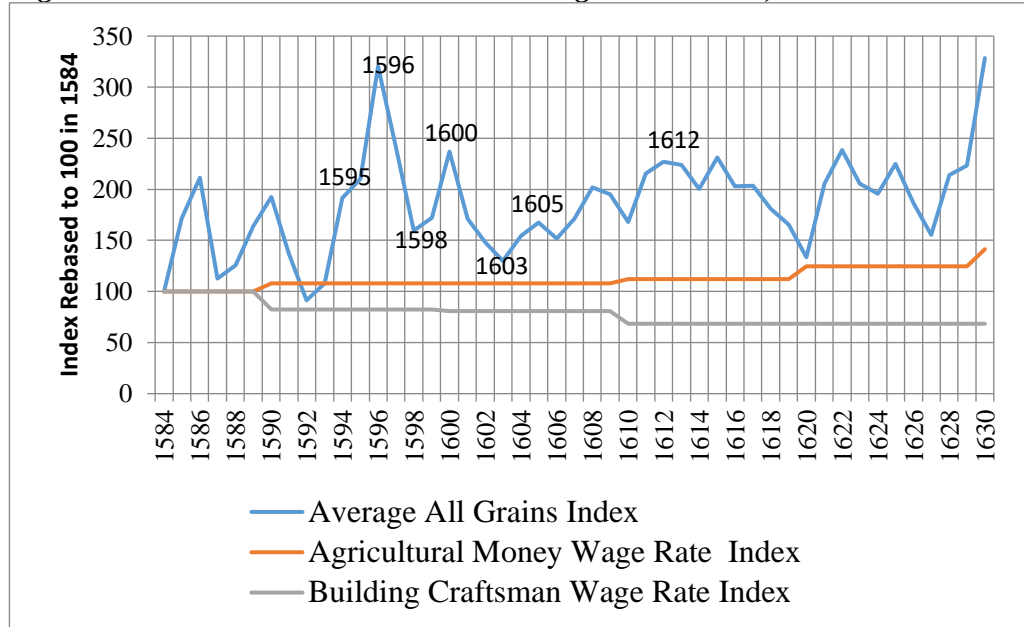
²⁸⁶ Andrew B. Appleby, 'Famine and Disease, 1587-1588' (Ch. 7) and 'The crises of 1597-98 and 1623', (Ch. 8), in *Famine in Tudor and Stuart England* (Liverpool: Liverpool University Press, 1978), pp. 95-132.

²⁸⁷ Clark, 'A Crisis Contained? The Condition of English Towns in the 1590s', in *The European Crisis of the 1590s: Essays in Comparative History*, ed. By Clark (London: Allen and Unwin, 1985), pp. 44-66, (p. 45).

²⁸⁸ Thirsk, 'Table I, Price of Arable Crops', in *The Agrarian History of England and Wales, 1500-1640, Volume IV* (Cambridge: Cambridge University Press, 1967), pp. 815-828.

²⁸⁹ Thirsk, Table XVI, p. 865.

Figure 4.02: Grain Prices and Selected Wages 1584-1630, Rebased to 100 in 1584



Source: Thirsk

Some years – for instance 1600-3 – would provide relief (grain prices fell while wages stood still) but hunger pains would never be far away for those working in these sectors, and, at times, grain-based staples would have been downright unaffordable. Unsurprisingly, unbearable conditions led to riots and insurrections, which were often met with a crushing punitive response,²⁹⁰ running alongside evidence of a desire to help the needy. W. K. Jordan describes a significant example of cultural change that developed over several decades in the sixteenth and seventeenth centuries in response to the deteriorating economic conditions brought about by food shortages: ‘[L]arge and increasing sums of money were given by testators for the relief of the poor between 1540 and 1660’.²⁹¹ This seemed to run parallel to the thinking reflected in the body of legislation developed in England for Poor Relief over the same period. Compared to many European countries at this time, England was unusual in developing a tax-funded ‘system of poor relief’. Key

²⁹⁰ See Arthur F. Kinney, ‘Textual Signs in “The Merry Wives of Windsor”’, *Yearbook of English Studies*, Early Shakespeare Special Number, 23 (1993), 206-234. I first came across this article in Prof. Rutter’s ‘Shakespeare in History’ module, during my Warwick MA.

²⁹¹ Paul Slack, *The English Poor Law 1531-1782* (Cambridge: Cambridge University Press, 1990), p. 42. See also Jordan, ‘The Mechanisms’ (Ch. IV), in *Philanthropy in England 1480-1660* (London: George Allen and Unwin, 1959, repr. 1964), pp. 77-125.

legislation was passed in 1598 and 1601, building on earlier legislation (e.g. 1531, 1536, 1552, 1563, 1572 and 1576).

The dominance of food shortages in the early modern cultural context can be understood by inspecting the Elizabethan Privy Council Registers of the time, available in hard copy in the National Archives at Kew. The Registers run from 1540 to 2014 (with a few gaps) and contain minutes, orders, some proclamations, committee reports and a record of oaths.²⁹² Each bound volume of the Register has an informative subject index from the perspective of this chapter. It briefly summarizes discussion points and records whether a Privy Council Order was issued. Taking two examples of records collated, respectively, during plague and famine years (Volume 4 and Volume 6), and comparing the number of subject mentions in the indices provides a revealing glimpse into the positioning of food shortages relative to other matters also preoccupying the government in these key years.

Volume 4 is centred round a plague year (1578). Plague is indexed about fourteen times, and I counted six ‘Orders therein’ relating to the ‘staying of infection’. However, in this index the space allocated to economic concerns – ‘Pyrats’ and shipping movements – is greatest.²⁹³ For ‘corne’ there are twenty-one entries and nine orders. Volume 6 (which covers failed harvest years 1586/7) in contrast contains thirty-seven ‘corn’ entries, and twenty-seven ‘Orders therein’.²⁹⁴ Such materials must be used with care; there is a risk that the person who compiled the index introduced biases, over-emphasizing or de-emphasizing. However, the handwriting suggests that the same person compiled the indices to both volumes, thus the relative frequencies are likely to be consistent, making it reasonable to take the index as a benchmark for government time allocation. Even with the obvious reservations about human error, these materials suggest that the government of Elizabeth I actively micro-managed the way in which harvest failure was handled in the regions, seemingly to a greater extent than for the plague. There are references in the descriptive index to concern for the sufferings of ‘those like to perish’ in the

²⁹² National Archives website at www.nationalarchives.gov.uk.

²⁹³ Privy Council: Registers. Elizabeth I, Vol. 4. 26th July 1577 to 24th April 1580. PC 2/12.

²⁹⁴ Privy Council: Registers. Elizabeth I, Vol. 6. 19th February 1586 – 1st November 1587. PC 2/14.

dearth or in ‘great distress for want of corn’; but the index also refers to the ‘ill consequence’ to the state that might be brought by people ‘wanting necessary food’.

The concern for the poor can be seen as a positive reflection on the society (and the government) of the time, but, to take a more cynical view, the uncompromising form of some of the interventions also reflected royal fears of sedition driven by the pressures of dearth. Corrective action could be taken not only against vagrants (who could be publicly whipped thereby placing dearth in a painful aspect of the contemporary playing culture), but also against those refusing to support the poor. Elizabethan altruism, whether voluntary or regulated through the tax system, can be said to have taken the form of iron hand in velvet glove. As Slack explains:

The burden of raising rates, relieving the impotent, setting the able-bodied to work and apprenticing poor children, was placed firmly on the shoulders of church wardens and overseers of the poor in every parish. Justices were [...] to exercise a supervisory role [...].²⁹⁵

The sophisticated design and firm tone of the body of legislation developed for poor relief confirms that the Elizabethan powers-that-be were aware of the risks associated with a widening of the gap between rich and poor, and the civil unrest this could produce, when political, social, economic or environmental changes led to food insecurity. Such conditions (which recall the self-reinforcing feedback loops discussed in the Introduction and Chapter One) identify potential catalysts for the writing and production of early modern plays such as *King Lear*, *Coriolanus*, and *Pericles* (see Figure 4.02, p. 140), all of which thematise the interaction of power imbalances and food insecurity.

Dearth in Early Modern Theatrical Playing

Unsurprisingly, then, dearth was a regular theme on stage for the early moderns.

There is no shortage of instances of the effects of dearth on lives, livelihoods and consciences woven through play texts –an inevitable consequence of their presence in the cultural context and indeed the playing culture. Poor harvests driven by climactic shifts and wars, high food prices and a high mortality rate ‘exclusive of the

²⁹⁵ Slack, pp. 10-11.

plague' were immediate, and directly inter-related,²⁹⁶ far more so than they are now for those living in wealthier conditions. The 'rain it raineth every day', sang Feste in *Twelfth Night*²⁹⁷ and Lear's Fool in *King Lear*.²⁹⁸ These plays are believed to have come to the stage in 1601-2 and 1605-6 respectively. In the early 1600s the after-effects of the late 1590s harvest failures were still being felt, and the ability to bounce back may have been reduced by the fact that this period also happens to be about a fifth of the way into the period known as the little ice-age, agreed by 'geographers, geologists, glaciologists and [...] climatologists to run from 1550 to 1800'²⁹⁹ thus people had suffered the likely effects of lower average temperatures (thus also lower nutritional quality in food as well as the rigours of lower temperatures) for some time. Notwithstanding the poor relief system briefly described above it is unlikely that food politics could fully offset such effects. Moreover, an awareness of the interconnectedness of failed politics and failed agriculture is shown to run through this and earlier plays by Jayne Elizabeth Archer, Richard Marggraf Turley and Howard Thomas, who comment, for example:

Following *I Henry VI* (1592) and *Henry V* (1598-99), *King Lear* (1605-6) is the third and final of Shakespeare's plays to include an allusion to danel. The first two plays [...] use danel and related imagery to underline the correspondences between good husbandry and good government, and to interrogate contemporary issues of food supply and national security.³⁰⁰

Elsewhere, Kinney provides a fascinating example of the effect of food politics upon the early performances of *The Merry Wives of Windsor*.³⁰¹ This play may have been written somewhere between 1597 and 1599,³⁰² against the back-drop of increasingly draconian regulation, briefly described above, of the vagabondage many were forced into through lack of food and work. Figure 4.02 (p. 140) also shows this period to have coincided with a dramatic deterioration in food affordability, because of the

²⁹⁶ Kinney, 1993, p. 221.

²⁹⁷ Shakespeare, *Twelfth Night, or What You Will*, edited by Elam (London: Arden Shakespeare, an imprint of Methuen Drama, 2008), V, i, 393.

²⁹⁸ Shakespeare, *King Lear*, III. ii, 77.

²⁹⁹ Hubert H. Lamb, *Climate: Present, Past and Future*, Vol. 2 (London: Methuen, 1977), p. 104.

³⁰⁰ Archer et. al, 'The Autumn King: Remembering the Land in *King Lear*', *Shakespeare Quarterly*, Winter, 63 (4) (2012), 518-43 (530).

³⁰¹ Kinney, 1993.

³⁰² Giorgio Melchiori, 'Introduction' to *The Merry Wives of Windsor* (London: Arden Shakespeare, an imprint of Methuen Drama, 2000), pp. 18-30.

harvest failure aforementioned. Kinney explores differences between the folio and quarto editions of the play that seem to be largely explained by impossibility of staging the play as first written and where first intended (Windsor) because of the political sensitivity of laughing at a fat, profligate wastrel at a time when food was no laughing matter, and the punishment meted out for misbehaviour was far worse than the mere ducking in a muddy ditch suffered by Falstaff.³⁰³

A relatively well-known illustration of the topicality of dearth (and its connection to capital punishment) in the Shakespearian cultural context – thus potentially shaping play texts and performances – lies in the connection between events in William Shakespeare's own life, and the riots depicted in the opening scenes of the *Coriolanus*. This play is thought to have been written in the first decade of the 17th century, some five to ten years after the events neatly contextualised by E. K. Chambers:

The dearth appears to have been particularly felt in south-west Warwickshire [...]. Sturley reports to Quiney on 24 Jan. 1598, that the people were growing 'malcontent', and were approaching neighbouring Justices with complaints against 'our maltsters' [hoarders of malt, one of whom was William Shakespeare]. There was wild hope of seeing them in a halter, and 'if Lord God send my Lord of Essex down shortly, to see them hanged on gibbets at their own doors'.³⁰⁴

It is not known whether Shakespeare saw this exchange, but unlikely that he was unaware of public sentiment with regard to monopolistic behaviour displayed by market players of his day. Indeed, subject to *Coriolanus* having come to the stage early on in 1608, the 1607 anti-enclosure riots may have brought the issue of unequal access to food and food related resources back into focus again on stage. One can imagine the feelings of Shakespeare the well-to-do 1598 trader in 'ten quarters of malt' (as cited by Chambers with reference to documentation of 'Returns made to the authorities' on 4th February 1598),³⁰⁵ contemplating the idea that someone might like to string him up by the neck. Indeed, the language of the rioters in the early scenes of *Coriolanus* suggests the idea was not just fully digested but haunted

³⁰³ Shakespeare, *The Merry Wives of Windsor*, III, iii, 12-14.

³⁰⁴ Chambers, *William Shakespeare. A Study of Facts and Problems*, Vol. II (Oxford: Clarendon Press, 1930), pp. 100-1.

³⁰⁵ Chambers, 1930, p. 99.

Shakespeare for years: 'Let us revenge this with our pikes, before we become rakes.'³⁰⁶

Early Modern and Modern Cultural Contexts: Common Sensitivities

Even though social conditions in early modern England – the constant proximity of harvest failures, hunger, and disease – bore no resemblance to those of today there are nevertheless some significant commonalities between early modern and modern England. The idea of profits made by food commodity traders are as sensitive now as they were then: so much so that some global banks have closed down their agricultural commodity funds.³⁰⁷ 'Food supplies and employment opportunities did not keep pace' with demographics in early modern England, comments Slack, discussing the arrival and development of the early modern Poor Law,³⁰⁸ in words that could describe one of the most hotly debated issues in food insecurity now, too. Food security and nutrition have been regularly front of mind for politicians in the past two or three years for a number of reasons, including: the prominent discussions in the media of the food-related effects of the economic downturn (hunger in Greece, food banks in the UK, and political change under way in both countries); long-standing discussions of climate change (to which the food habits of some nations contribute) and its likely impacts on unequal societies; science reports suggesting that severe water shortages are likely in major food-producing parts of the world; and debates about the nutritional quality of sugar, modern grains, and the processed food based upon them.

Having enough food, but not of a quality sufficient to meet nutritional standards sufficient for good health may be another problem the early moderns might have regarded as nice to have when the challenge was to find the next meal. In the 21st century micronutritional inequality is highlighted by the fact that people continue to suffer the effects of malnutrition in developing countries alongside a world-wide obesity epidemic (also a form of malnutrition) in the west. Scientific evidence suggests that the causes of the obesity problem are unlikely to be

³⁰⁶ *Coriolanus*, I, i, 20-21.

³⁰⁷ Jan Ascher, Paul Laszlo and Guillaume Quiviger, 'Commodity Trading at a Strategic Crossroad', McKinsey Working Papers on Risk, 39 (2012) www.mckinsey.com/~media/mckinsey/dotcom/client_service/risk/working%20papers/39_%20Commodity_trading_at_a_strategic_crossroad.ashx.

³⁰⁸ Slack, p. 3.

Falstaffian – that is to say, caused by greed. Economics (thus, a failure of social ecosystems) seems to have something to do with this problem: A 2015 report of the UK Overseas Development Agency analysing food prices between 1990 and 2012 reported that junk food had become significantly cheaper while the price of fruit and vegetables had risen significantly.³⁰⁹ The effects of this are inevitably unequal because of the variation of shares in family income with wage levels – see Figure 4.02 (p. 140).

Overall, the risk that modern-day hunger in the UK as a pale reflection of the extremes of starvation experienced by the early modern poor might weaken this ecotheatrical thought experiment seems to be quite low. Moreover, while globalisation and modern agricultural technology afford protection against outright dearth in the UK and elsewhere by improving the reliability of food supplies, the resource-related system of ecodata discussed in Chapter One (and the Global Footprint ecodata underlying Figure 1.01 (p. 35)) questions the ability of technology to stay the next dearth indefinitely. The presence of food insecurity as potentially a contentious issue in modern times was directly connected to early-modern sensitivities by an interesting development in the spring of 2013, when Shakespeare was ‘outed’ in the context of a March 2013 ASLE conference that caught the attention of the press,³¹⁰ as an illegal food-hoarder and tax-evader in research by Aberystwyth University academics.³¹¹ They argued that academe had been ‘complicit’ in covering up Shakespeare’s involvement in the ‘business of hunger’. It would be an exaggeration to say that 21st century readers called for the gibbet, but the press reaction suggests considerable excitement. The Shakespeare-as-capitalist-grain-trader story ran in a significant number of news publications including the *Telegraph*, *Independent*, *Huffington Post*, *Daily News*, *Daily Mail*, *BBC*, *Fox News*, *LA Times* and *Forbes*. To cite just one:

³⁰⁹ Steve Wiggins and Sharada Keats with Euan Han, Satoru Shimokawa, Joel Alberto Vargas Hernandez and Rafael Moreira Claro, ‘The Rising Cost of a Healthy Diet: Changing Relative Prices of Foods in High-Income and Emerging Economies’, a report of the Overseas Development Institute (London: ODI, May 2015).

³¹⁰ As described on his blog by Turley in ‘The bankster bard...’, 1st April 2013, at <www.richardmarggraffturley.com/blog/the-bankster-bard>.

³¹¹ Archer et. al., *Food and the Literary Imagination* (Basingstoke: Palgrave Macmillan, 2014), p. 81.

Court and tax records show that over a 15-year period Shakespeare purchased grain, malt and barley to store and resell for inflated prices, according to a paper by Aberystwyth academics Dr Jayne Archer, Professor Richard Marggraf Turley, and Professor Howard Thomas.³¹²

Considering that this information about William Shakespeare is not new, but has been there for all to read in Chambers for many years, one possible explanation for this reaction is that the cultural context lent the issue relevance when the book was previewed in 2013 and published in 2014 because of the rising levels of food poverty still at work several years on from the credit crunch. The Trussell Trust, the UK food bank charity, reported a 51% rise in the number of food parcels to 913,000 in the year in which their book was published.³¹³ Relatedly, one possibility explored below is that dearth resonance on stage might be more likely when economic conditions are weak enough to produce significant unemployment at home, in the event of commodity price shocks (when food and energy suddenly become more expensive) or when there are accounts of famines or prominent food shortages in the media. In the UK, for example, significant downturns occurred in 1973-5, 1980-1, 1990-1, and 2008-10 (with continuing effects right up to the time of writing). Commodity price shocks were seen in 1971-3, and 2005-8. John Ingram, Polly Ericksen and Diana Liverman cite the FAO: a ‘rapid rise in food prices in 2007-8 [...] increased the number of hungry people to 923 million’. Globally speaking, the financial crisis of 2008-9 exacerbated the problem by constraining incomes available for food, taking the number of hungry people to over 1 billion world-wide.³¹⁴

Food Insecurity in Performance: Dearth in Modern Theatrical Playing

Evidence that an unequal distribution of food insecurity can and does produce a response in modern-day live theatre is readily found. The appearance of the (then new) 1973 play by Edward Bond – *Bingo* – is a good example. 1973 was the first year of the UK economic downturn triggered by the oil crisis (see Figure 1.01 (p. 35), where the proportion of the year in environmental debt fell for three years from 1980 onwards). This was thus an appropriate time to retell the story of Shakespeare

³¹² Sam Marsden, ‘Shakespeare Was a Tax-Evading Food-Hoarder, Study Claims’, *Telegraph*, 31st Mar 2013.

³¹³ Brian Milligan, ‘Food banks see “shocking” rise in number of users’, *BBC News*, 16th April 2014 <www.bbc.co.uk/new/business-27032642>.

³¹⁴ John Ingram et. al., *Food Security and Global Environmental Change* (London: Earthscan, 2010), loc. 554.

the landowner's stance with respect to land enclosures in 1614/5. *Bingo* was first performed in the Northcott Theatre, Exeter on 14th November 1973 and in the Royal Court, London in 1974.³¹⁵ It was later revived in a highly-acclaimed production by the Young Vic in February 2012 under director Angus Jackson, with the well-known Shakespearian actor Patrick Stewart cast in the role of Shakespeare. Enclosures (in which the rich and powerful assumed ownership of and consolidated small landholdings in the name of productivity) had a number of unfortunate effects. As described by Stephen Greenblatt they 'tended to make grain prices rise, overturn customary rights, reduce employment, take away alms for the poor, and create social unrest.' 1614/5 marked the enclosures battle in which Shakespeare had come to a financial arrangement with potential enclosers of Stratford land that would leave him no worse off, as an owner of certain tithes, whatever happened. Thus protected, he did not join forces with the Stratford Corporation to protect others more vulnerable to its effects.³¹⁶ Bond thus identifies a similar feedback loop to the one at work in this thought experiment. By putting both cultural contexts on stage, he links them through the Diamond Model theatrical playing node, exploiting political sentiments at work in austerity Britain. Meanwhile, emotional feedback loops to such concerns are potentially forged through the 'radically biological materialism [...] that grounds the political and the economic in human corporeality' in Bond's theatre as described by Garner Jr. in *Bodied Spaces*.³¹⁷

In 2012, a modern post-script to *King Lear* appeared in the form of a new play by David Watson, *The Serpent's Tooth*, directed by Michael Buffong. This play explored what 'sustaining that "gored state" might mean', in an epilogue to *Lear*. In Watson's extension of the story, the traitor Edmund is confined to an 'isolated prison'. An envoy from the crown – named Abina – arrives to oversee the trial and is refused entry until his credentials can be checked.³¹⁸ As this requires a messenger to ride back to the city, the suspicion is that his mission is being

³¹⁵ Bond, *Bond Plays 3: Bingo; The Fool; The Woman; Stone* (London: Methuen, 1987), p.16.

³¹⁶ Greenblatt, *Will in the World: How Shakespeare Became Shakespeare*. (London: Jonathan Cape, 2004), p. 377.

³¹⁷ Garner Jr., 1994, p. 177.

³¹⁸ William Drew, *The Serpent's Tooth: A Response to King Lear*, Shoreditch Town Hall, 7th – 12th November 2012, Review, *Exeunt Magazine*, OWE and Fringe, 15th November 2012 <www.exeuntmagazine.com/reviews/the-serpents-tooth/>. See also Jackie Friend, 'The Serpent's Tooth': David Watson on Writing a Post-Lear World, 7th November 2012 <<https://almeida.co.uk/the-serpent-s-tooth-david-watson-on-writing-a-post-lear-world>>.

subverted by the prison guards. Most significantly, in this context, the Warden also asks whether, because they are starving, they can eat Abina's horse, the agreement being that it will be replaced by a new one from the city. In acceding to this request, Abina leaves himself in a powerless position. In this reading – which can be seen as a response to the ecological thread of meaning observed by Black – the 'gor'd state' seems to imply social collapse and dearth.

Other evidence includes an element of dearth-awareness in critical responses to other plays. In *Pericles*, the starving people of Tarsus are rescued by the arrival of ships 'stored with corn'. The World Shakespeare Festival production was performed in Greek during a major (Greek) financial crisis thus might be expected to produce dearth-related resonance. Reviewer Alex Needham noticed the preoccupation with the Eurozone crisis as reflected in 'threadbare costumes and props' and in the cry (in English) of 'I'm starving! I'm Greek!' from one of the poor fishermen who rescued Pericles in Act Two.³¹⁹ Purcell, reviewing the same production, added another invaluable crumb:

"I'm starving, I'm Greek" explained Pericles (Christos Loulis) to the groundlings as he begged them for food. Upon being presented with a sandwich by an obliging playgoer, one of the fishermen (Giorgos Glastras) ad libbed: "You're so nice here in England, you should join the Euro."³²⁰

These two accounts of this physical spectatorial reaction are quite different in tone. In the first, the poor starving Greeks and the audience seem to be in different worlds (as are the starving and the food-secure). In the second, groundlings and poor Greeks seem to be in one food-insecure world in which people share what they have, and the seated audience finds itself at one remove (not unlike the grain-hoarders of the 1590s or the food-secure watching the Irish famine unroll from afar), watching the interaction but constrained from responding in the same way.

³¹⁹ Needham, *Pericles* in Greek, Shakespeare's Globe, Review, *Guardian*, 30th April 2012 <www.theguardian.com/stage/2012/apr/30/world-shakespeare-festival/shakespeare/>.

³²⁰ Purcell, 'Pericles: Directed by Giannis Houvardas for the National Theatre of Greece (Athens, Greece) at Shakespeare's Globe', Review, in *A Year of Shakespeare*, ed. by Paul Edmondson, Paul Prescott and Erin Sullivan (London: Bloomsbury, 2013), pp. 161-166 (p. 162). This article was first published on 30th April 2012 on Blogging Shakespeare <bloggingshakespeare.com/year-of-shakespeare-pericles>.

This concludes the setting-up of the conditions for the *Coriolanus* thought-experiment in the following section of this chapter. In summary, several conditions favour the presence of dearth as an actant representing the environment on stage in modern-day productions of *Coriolanus*.

Ecologies of Dearth in *Coriolanus*

As the above discussions already suggest, William Shakespeare's play *Coriolanus* stands out in the canon as connecting politics to food, thus it can be seen as an excellent litmus test with respect to the 21st century cultural and political positioning of food insecurity. The key scene I identified in this play as an informative focal point for modern attitudes to food security is Act One, Scene One. It places dearth as an actant – a force having significant potential efficacy – at the core of the action in the play overall. Thus, what happens to it in production is potentially interesting evidence with respect to dearth-awareness thus potentially also ecoawareness in a broader sense. The riot in the opening scene is peopled by 'mutinous' citizens armed with 'staves, clubs and other weapons'. These 'plebeians' are protesting against hunger, and its inequitable distribution between the well-fed patricians and the rest. Thus:

What authority surfeits on would relieve us. If they would yield us but the superfluity while it were wholesome, we might guess they relieved us humanely. But they think we are too dear. The leanness that afflicts us, the object of our misery, is as an inventory to particularise their abundance; our sufferance is a gain to them. Let us revenge this with our pikes ere we become rakes; for the gods know, I speak this in hunger for bread, and not in thirst for revenge.³²¹

Later in this key scene, Coriolanus' friend Menenius Agrippa successfully diffuses the Citizens' anger by explaining the benign role played by the state – the metaphorical belly – as a fair distributor of food stores.³²² Through this narrative he assigns a physiological dimension to food power-politics, through the fable of the dominant stomach and the inferior extremities. The extended metaphor of the belly and the bodily members is important in being closely connected to three key themes running through the play: food power imbalances; bodily distemper and disease; and

³²¹ *Coriolanus*, I, i, 13-23.

³²² *Ibid.* 1, i, 91-158.

imbalances in the body politic. Menenius' playful description of the patrician view of an appropriate balance in the domain of food power – in which the 'senators of Rome' are benign distributors of food according to need – comes up repeatedly in the context of Coriolanus' tirades, but as an idea he strenuously disagrees with. Corn handed out for free 'nourished disobedience'; it was not deserved by those who had not fought for the city when needed.³²³

The scorn in which Coriolanus holds the lower orders is reinforced by such comments. However, they also reflect tensions in the body politic, which is thrown out of balance by Coriolanus' world view and uncontrolled behaviour. Thus, for the tribunes he is a 'disease that must be cut away'.³²⁴ Elsewhere, it is made clear that he comes of a choleric stock – his mother describes anger as her 'meat', and like the cannibal, devouring herself '[she] starve[s] with feeding'.³²⁵ Cannibalism – an overturning of the natural order of things – appears repeatedly in the play's imagery.³²⁶ The shocking moment when Volumnia kneels to her 'corrected son' is also an overturning of the natural order of things. Coriolanus' own description of this moment hints specifically at a metaphorical reversal of higher and lower social orders (in the idea that humble pebbles on the 'hungry beach' might change places with the stars). The bouleversement in his own life in this moment is thus explicitly connected to the hunger-driven mutiny at work in the opening scene:

Then let the pebbles on the hungry beach
Fillip the stars. Then let the mutinous winds
Strike the proud cedars 'gainst the fiery sun.³²⁷

A key point about *Coriolanus* as a dearth play is that food security – the opposite of dearth – is presented as depending upon the system of feedback loops that make up the social order. The achievement of balance between the extremes of dearth and plenty (a reasonable definition of social order in this context) also depends on an ordered relationship with nature. This also depends, in turn, upon a balance in the

³²³ Ibid, III, i, 117 and 125-6.

³²⁴ Ibid, III, i, 296.

³²⁵ Ibid, IV, ii, 50-51.

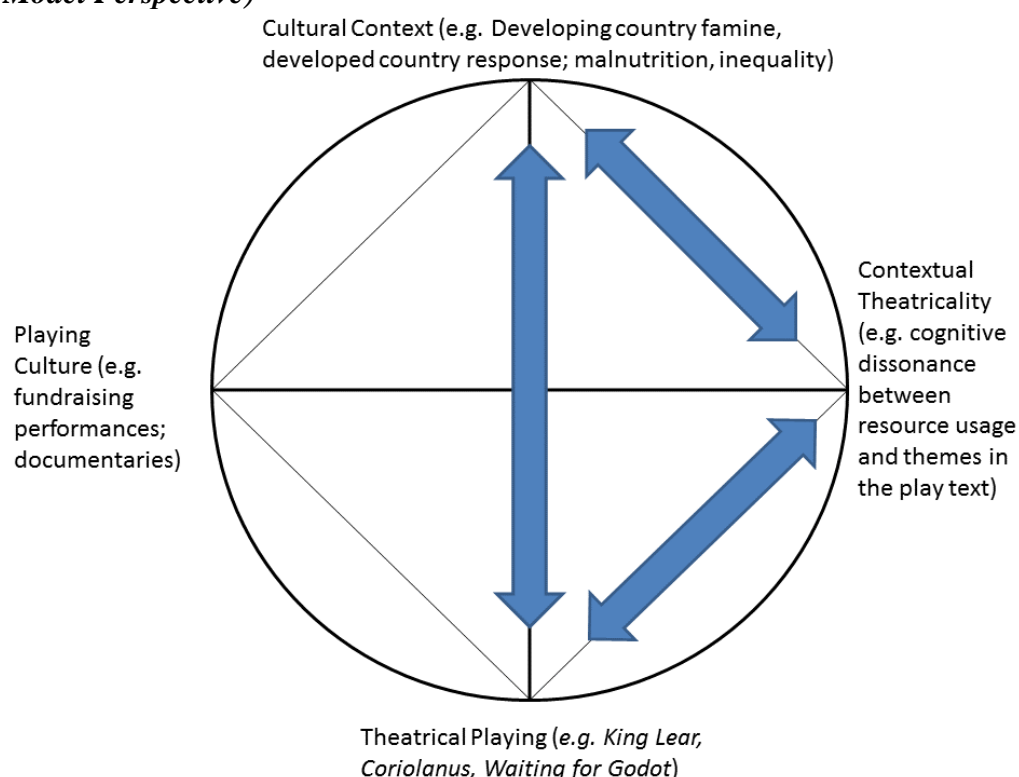
³²⁶ E.g.: 'If the wars eat us not up, they will; and there's all the love they bear us.' (I.i.79-81.); 'to devour him, as the hungry plebeians would the noble Martius' (II, I, 9-10); and Rome is compared to 'an unnatural dam | Should now eat up her own (III, i, 294-5).

³²⁷ Ibid, V, iii, 57-60.

‘body politic’ – the opposite of which is depicted in *Coriolanus*. In this play, bad governance, government or stewardship leads to the opposite of stability, thus is at the root of the dearth suffered by the plebeians. The play thus thematises broken-down social and natural relationships and their consequences. In modern parlance, dearth in performance is ultimately about system (and ecosystem) collapse, and its presentation in the play, seen through modern eyes, can be described as ecoanthropocentric. This play in production in the 20th and 21st centuries is likely to be an illuminating source of evidence with regard to the main research question addressed in this chapter.

In the final paragraphs of this chapter I therefore focus on what happens, in production, to the opening scene in *Coriolanus* (whether it is emphasised or excised for instance), along with what happens to the plebeians, in this scene and elsewhere.

Figure 4.03: Modern Productions of Dearth Plays and Eco-Awareness (Diamond Model Perspective)



Source: Sauter and Author

In a balanced production that all-important first scene will be coherently embedded in the whole, or re-emphasised, rather than cut; and the balance between the two interwoven narrative arcs will be carefully maintained. Decisions on such points are

likely to be most heavily shaped by the right-hand side of the Diamond Model – the contextual theatricality of production teams – although other dimensions are present in the production ecosystem, too. This is illustrated in Figure 4.03.

I consider three examples in which the impact of the plebeians (thus the dearth narrative) in the production was diminished, for various reasons, followed by an important example in which the reverse seems to me to be the case. In the first example the crowd of plebeians was vastly cut back. (As I shall demonstrate with offsetting examples, this was not a consequence of the samurai style of the production.) In the second, the status of the lead player and the lavish style of the set seemed to come across as the main rationale for the production, and whether this was intended or not, the effect was to overwhelm the plebeians. My third exploration of dearth feedback loops describes a tremendously innovative 1984 production in which a seemingly small detail initially undermined the egalitarian vision driving the whole. However, by the end of the run this had been corrected, albeit only in the final two performances, in a good example of a rehearsal feedback loop. My fourth and final exploration is a 1994 RSC production that used a clever piece of theatre-business – a shapeshifter ‘ex machina’ – to place dearth firmly in the spotlight, centre-stage.

Occluded Feedback Loops

My first example of occluded dearth feedback loops, David Farr’s 2002/3 Japanese dress production, did not stop at cutting the number of plebeians right down. It also curtailed the amount of space they occupied on stage relative to the patricians, hinting at an unbalancing of the play’s ecosystem at a very early stage in the performance. This was particularly striking in the opening scene, which can be observed on a blurred DVD recording in the Shakespeare Birthplace Trust Library and Archive. The lights went up on a polished red stage (the thrust stage of the Swan Theatre), in the middle of which stood a solitary rough-hewn wooden crate. This clashed oddly with the stylized set, and, appropriately enough, turned out to be a plebeian soap-box. At the back of the stage sat three imposing samurai figures with their backs to the audience, swords visible to the left of each figure. After a moment, I realised the middle figure was Caius Martius (Greg Hicks), ceremonially flanked by two senators. The leading Citizen marched up to her soap-box and duly berated her fellow citizens. Many of her lines were (I thought) effectively

emphasized and magnified by the chorus of shouts at appropriate moments from an offstage crowd somewhere up in the galleries to the right and left of the stage. However, this tactic did not fully offset the problem that she alone was speaking for all the Citizens with occasional support from two Citizen supernumeraries. The intention may have been to suggest symmetry between the Citizen and her two henchmen, and Coriolanus with his two senators, as they stood with their backs to each other. If so this idea backfired. Its effect for me, as a spectator of the recording, was to reinforce the powerlessness of the Citizen-representative. The imbalance of power in favour of Caius Martius was enormous, even at this very early stage in the play. To the point, Billington described the Citizens as upstaged even when they should have been centre-stage: ‘Even as Shakespeare’s starving citizens are protesting “What authority surfeits on would relieve us”, we are arrested by the upstage presence of Hick’s Caius Martius.’³²⁸ Academic critic Michael Dobson described the mob scenes in the production (which took place about three years on from the global stock market crash of 1999/2000) in a manner that put a finger on the irony running through this production from the perspective of the dearth narrative in the text:

[I]n today’s economic climate, when two is a retinue and three is a crowd, this play’s inclusion of an angry mob as a main character can make it extremely difficult to stage with the sort of naturalistic violence for which its street scenes call.³²⁹

During economic downturns, less wealthy people can be harder hit than the relatively well off. The cost-cutting Dobson hints at seemed to have been wielded in the manner of the samurai sword, patrician weaponry cutting plebeians off at the neck. The imbalance was maintained as the play progressed – the Prompt Book for this production, for instance, confirms the systematic diminution of the mob. The line cited above by Billington (‘What authority [...]’) was the last spoken by the First Citizen in that key speech (cited in full on p. 139). Thus, the humorous (and memorable thus likely to be missed) line about pikes and rakes was conspicuous by

³²⁸ Billington, ‘Coriolanus Turns Samurai Warrior’, *Guardian*, 28th November 2002.

³²⁹ Dobson, ‘Shakespeare Performances in England, 2003’, *Shakespeare Survey Online* (2004) 258-289 (285).

its absence. In the Fable of the Belly scene important words were missing: for example, the ‘cormorant’ of the belly was absent. Not only was a striking image lost, but I could not help feeling that this was a cut at odds with the play and indeed the production, too, considering the long tradition of cormorant fishing in Japan.

Meanwhile, critics described the battle scenes as ‘exceptionally gory’.³³⁰ This was no exaggeration. As shown in production postcards filed in the SBT Library and Archive, Greg Hicks was not just battle-stained. His bare torso was slick with an unbelievable quantity of still-wet stage blood. As such photographic poses captured for spectatorial consumption after the event (and the title of Charles Spencer’s review footnoted below, ‘He was borne to play this role’) suggest, the key point about this production was Coriolanus the character, and the actor playing the lead. Overall the heavy focus on the lead protagonist was thus decisive in mitigating against the clear presence of dearth as a shapeshifter.

Productions that de-emphasise Act One Scene One, and/or the crowd are weakening a deeply embedded part of the overall structure, and an important connection-point (through the effects of dearth) to nature in culture and culture in nature. As Billington said of a different production – Robert Lepage’s November 1993 Nottingham Playhouse production of *Coriolan* (adapted and translated into Canadian French by Michel Garneau): ‘But by excising the crowd – who appear in 25 of the 29 scenes – Lepage denatures the play.’³³¹ The point that the excision of the crowd (and not the potential dislocation arising from the innovation of the Japanese setting) was the main problem for the overall imbalance in Farr’s production comes through in the contrast with two other productions performed in Japanese by Japanese theatre companies. In Ninagawa’s Complete Works Festival production at the Barbican in April 2007 (a generously-budgeted pre-credit-crunch production as reflected in the large numbers hired to swell the plebeian crowd),³³² what most stands out is that Coriolanus did not seem to be the main point. This puzzled reviewer Peter Kirwan. He found him ‘muddled’ – by turns ‘arrogant’,

³³⁰ Spencer, ‘He Was Born to Play This Role’, *Coriolanus* Review, *Daily Telegraph*, 28th November 2002 <www.telegraph.co.uk/culture/theatre/drama/3586373/he-was-born-to-play-this-role.html>.

³³¹ Billington, *Coriolan* Review, *Guardian*, repr. *Theatre Record*, XIII (24), 1398. *Theatre Record* compiles and republishes theatre reviews on a fortnightly basis. (From 1981 to 1990 it was entitled *The London Theatre Record*.)

³³² Ninagawa, interviewed in the Barbican Theatre Programme, observed that he had expanded the cast from twenty-five to forty in order to ‘express’ the idea of the crowd.

‘misunderstood’, ‘heroic’ and ‘brutal’ – and he was not sure whether the homoeroticism taken to ‘brutal extremes’ earlier in the year at the RSC by Doran was ‘deliberately or ignorantly’ occluded.³³³ For Kirwan, who seemed to bring certain expectations with him as a spectator, Coriolanus the character came across as inconsistent. Lyn Gardner, on the other hand, had no such problem but described a ‘deeply flawed’ Coriolanus unable to understand the need for balance between ‘brute strength’ and ‘compromise’. She also described visually exciting scenes in which ‘bodies teem[ed] and tumbl[ed] with such precision, it seems as if there [were] hundreds of people on stage’.³³⁴ The mob was thus duly magnified:

As the house lights faded, this immense, precipitous structure [resembling an ‘oriental ziggurat’] was suddenly populated by an entire brown-clad plebeian riot, twenty strong and doubled and redoubled again by the side mirrors, converging down the centre of the stairs, and all shouting at [enormous] volume.³³⁵

Figure 4.04: An Alignment of Ideas in the Magnified Mob (Production Photograph)

[Photograph not shown for copyright reasons.]

A photograph similar to the one I drew on, which was on the Barbican “What’s On” archive (no longer there in the same format), can be found on the Photostage website.³³⁶

Source: Barbican Theatre Website

³³³ Kirwan, ‘*Coriolanus* (Ninagawa Company) @ The Barbican Theatre’, in UoN Blogs / *The Bardathon*, April 30th 2007 <blogs.nottingham.ac.uk/bardathon/2007/04/30/Coriolanus-the-barbican-theatre/>.

³³⁴ Gardner, ‘*Coriolanus* – Barbican, London, Review, *Guardian*, 27th April 2007 <www.theguardian.com/stage/2007/apr/27/theatre3>.

³³⁵ Dobson, ‘Shakespeare Performances in England, 2007’, *Shakespeare Survey Online*, (2008) 318-350 (325).

³³⁶ www.photostage.co.uk/gallery/preview/2246/2252/1298/0/coriolanus-07ninagawa-5060/0_00022712.html

If the mob was prominent in Ninagawa's production, it was food that was centre stage in the Chiten Theatre Company's World Shakespeare Festival production in Japanese at Shakespeare's Globe, directed by Motoi Miura. In this production, a cast of five performed *Coriolanus* chorus-style.³³⁷ This had two effects. Here, as in Ninagawa's production, Coriolanus the character and/or the performance of the lead player did not come across as the main point. Rather, the production as a whole was what mattered. Secondly, with such a small cast, this came across as a frugal (post crunch) production, however in this case cost-cutting was not exercised in favour of the patricians. The props budget also seemed to be frugal.³³⁸ As described by Adele Lee, reviewing the production in *A Year of Shakespeare*:

The use of baguettes as props was [a] notable feature of this production. All cast members brandished the baguettes as weapons while their constant consumption of the bread reflected not just greed, but the destruction and emasculation of Coriolanus (the baguette, after all, can be a phallic symbol).³³⁹

Watching a film of this production on Globe Player, I found that the baguettes had interesting effects. Someone speaking powerfully and brandishing bread as a sword could look strong and vulnerable at the same time (a good description of the character of Coriolanus in the play); conversely a hungry person armed with a baguette (and brandishing it rather than eating it) reminds us that hungry people can bring down governments. Thus, although significant parts of the play are excised because of Chiten's choric approach, food insecurity is prominent, and consistently embedded, in this production. Returning to Farr's 2002/3 *Coriolanus*, the contrast with these two Japanese productions suggests a possible misapplication of the idea of the samurai warrior in the Western, pseudo-Japanese version. Both Japanese language productions balanced the two sides of the story whereas in Farr's

³³⁷ Dai Ishida played Coriolanus; the 'Choros' was played by Satoko Abe; Shie Kubota; Sakai Kohno and Yohei Kobayashi.

³³⁸ The 2012 World Shakespeare Festival was well timed for ongoing reactions to the 2007-2010 credit-crunch and the commodity price-shock that immediately preceded.

³³⁹ Lee, 'Coriolanus', Directed by Motoi Miura for the Chiten Theatre Company (Kyoto, Japan) at Shakespeare's Globe', in *Edmondson et. al.*, pp. 47-50, (p. 49).

production, the samurai setting – perhaps scenery for the lead actor rather than shapeshifter for the production – served to imbalance the production even further away from dearth awareness. As theatrical ecosystems, this example and the two counterpoint examples are behaving very differently. In the first, the dominant shapeshifter in the production is the star actor. In this he is analogous to the human being seeing him or herself as central to the planetary ecosystem. In the two Japanese productions, the star-actor feedback loop is better balanced with the dearth narrative. Thus, dearth can be heard and seen as a shapeshifter. These are not overtly ecological productions, but ecoefficacy is a possibility in the counter-examples and highly unlikely in the main example, unless as a reaction against the star-actor culture, perhaps. Balance in the social ecosystem as represented in the two Japanese productions would not necessarily be accepted by all ecocritics as a form of ecoanthropocentrism. Chaudhuri, for example, might argue that social rather than environmental concerns are foregrounded, notwithstanding the importance of the dearth shapeshifter in the whole. However, an ecosystemic, ecoanthropocentric perspective suggests that it is precisely those social imbalances that are silencing the environmental shapeshifter (dearth) in Farr’s inconsistent production.

My second example of occluded dearth feedback loops is Gregory Doran’s March 2007 production of *Coriolanus* (briefly referred to in Kirwan’s review, above) in which Will Houston starred as the lead protagonist. Like the Barbican production, it was staged right before the peak of the financial bubble,³⁴⁰ and was also the last RSC production just before the substantial refurbishment of the Royal Shakespeare Theatre.³⁴¹ Financial bubbles are strong societal feedback loops, capable of sidelining dearth even when this was not the intention. A rich budget may well explain the set – a series of imposing marble arches, artistically streaked in colours ranging from red to grey. Critics did not much like Richard Hudson’s set. It was variously described by as ‘clutter[ing] the stage’, ‘big [and] old-fashioned’;³⁴² a ‘vast edifice of

³⁴⁰ Anonymous, ‘The Rise and Fall of Northern Rock’, *Telegraph*, 14th August 2014. <<http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/11032772/The-rise-and-fall-of-northern-rock.html>>. 15th September 2007 was the day savers queued round the block to try and get their money out of Northern Rock, thus dramatically marking the start of the credit crunch.

³⁴¹ Paul Levy, ‘Age shall not wither her’, *Wall Street Journal*, 26th November 2010 <www.wsj.com/articles/SB10001424052748704170404575624341860535002>.

³⁴² Dobson, ‘Shakespeare Performance in England, 2007’, *Shakespeare Survey Online* (2008) 318-350 (325).

marble which, thanks to audible hydraulics, yields to the flat plain of battlefields’,³⁴³ and a ‘receding perspective of rows of meaningless marble and terra-cotta doorways’.³⁴⁴

However, the problem of the set seemed to me to go deeper than such descriptions. As I watched the production on DVD in the SBT Library and Archive, I felt that, had the Citizens stopped in their tracks at any moment as they came running onto the stage at the opening, the resulting freeze frame would have graced any museum wall as an oil painting. In other words, from a visual perspective, this was no riot embarked upon in desperation. With the exception of the leading Citizen, who wore a brown leather apron, the citizens wore flowing robes. Much thought seemed to have gone into the muted shades of red, russet brown, green or orange in which each individual was respectively garbed. As the citizens moved about the stage they generated a shifting demi-rainbow effect designed to harmonize gracefully with the marble back-drop. Beautiful as the scenes playing out on stage were, I thought their effect was to reduce dramatic tension. Almost as if the harmony exuding from their robes had dampened the ten citizens’ acting performances, passion and hunger were notably lacking. Dobson, similarly, described them as ‘woefully clean and polite [...] dwarfed by the set and unable to make up in energy of menace what they lack[ed] in numbers’.³⁴⁵

A mob diminished by the vastness of a set in facilitated by plentiful production resources could be seen as deeply ironic considering the narrative of the dearth-related imbalances of power at the core of the play. The problem was exacerbated by the lack of nuance in Will Houston’s performance as Coriolanus. De Jongh described his ‘snarling contempt for the Plebs [as beginning] at top range and never abat[ing]’:

He puts down the feeble Plebs as if they were cotton-woolish lightweights, and in the same tone he delivers Coriolanus’s climactic fusillade of outrage for the Rome authorities who exile him.³⁴⁶

³⁴³ Patrick Marmion, *Coriolanus* Review *Daily Mail*, 7th March 2007. Viewed in hard copy in Shakespeare Birthplace Trust Library and Archive cuttings.

³⁴⁴ Nicholas de Jongh, ‘This Warrior is Too Wild’, *Evening Standard*, 7th March 2007. Viewed as above.

³⁴⁵ Dobson, 2008, 318-350 (325).

³⁴⁶ De Jongh, 2007.

This was a production of disempowered plebeians, thus dearth as a shapeshifter was mute in this production, in which hunger seemed to be far from phenomenologically experienced by anyone involved.

My third example of occluded dearth feedback loops (in which I refer to one counter-example) is different to both the above, in the sense that the raw ingredients were in place for dearth to be prominent as a shapeshifter. In Hall's 1984 *Coriolanus* at the National Theatre, two points stood out about the production. First, the casting was stellar, with Ian McKellen as Coriolanus and Greg Hicks as Tullus Aufidius. Jack Kroll (*Newsweek*), cited on Ian McKellen's own website,³⁴⁷ described McKellen's Coriolanus as a 'titanic study in arrogance',³⁴⁸ while for Billington he was a 'charismatic monster'.³⁴⁹ Secondly, the decision to put part of the audience on stage and to call upon some spectators to swell the ranks of the mutinous citizens at key points not only underlined and magnified the plebeians' part in the whole, it also introduced an element of interactive theatre thereby bringing spectators and actors closer together. In terms of the introductory definition of theatrical ecosystems, this would be expected to have two effects. The Citizens would be able (as a feedback loop in the system) to provide balance against the star actor system also at work, thereby giving dearth, as a shapeshifter, a fighting chance of being heard. Increased proximity between spectators and actors might potentially tap into the emotional spectatorial processes described in Part One of this thesis. In another important strategy described by Bedford, the promenade seats allocated to spectators who would 'come to the central playing area when instructed by the actors' were sold at a reduced rate 'thus attracting a broader cross-section of society into the theatre'.³⁵⁰ Bedford's rehearsal notes on Menenius's 'fable of the belly' speech moreover show how important it was to the Company to get this speech and scene right.³⁵¹ On the face of it, then, this was a production that treated the two sides

³⁴⁷ Ian McKellen, 'Coriolanus (1984): Words from Ian McKellen', on *Ian McKellen Stage*, 2003 <www.mckellen.com/stage/coriolanus>. He cites the number of performances: one hundred and two in London, two in Athens.

³⁴⁸ Kroll, *Coriolanus* Review, *Newsweek*, 14th January 1985. Viewed in hard copy, National Theatre Archive.

³⁴⁹ Billington, *Coriolanus* Review, National Theatre, *Guardian* 17th December 1984, repr. *Theatre Record*, IV (1984) (25-6) 1129.

³⁵⁰ Bedford, pp. 42-3.

³⁵¹ Bedford, 'Diary of the Rehearsal Process', pp. 193-337 (pp. 202, 207-8, 232).

of the story as an integral whole, giving full emphasis to the plebeians. It was dearth-aware. So, what went wrong?

For a number of the critics who reviewed this production, the treatment of the mob scenes seemed to backfire in London performances in the run, even though there were exceptions. Billington (an exception) saw the casting of non-actors to swell the crowd as underlining the message on the banners carried by the Citizens ('Corn for the people') as well as reinforcing Hall's message regarding the need for 'compromise' in good government.³⁵² Others were less complimentary. Michael Ratcliffe, reviewing the production for the *Observer*, described the casting of the Plebeians as 'a very dumb idea' and asked whether the intention was to suggest that the Citizens were 'so wet, so indifferent, so dim'.³⁵³ For Stephen Wall, a 'hungry mob demanding corn at their own price' was not adequately performed by 'a miscellaneous group of theatre-goers who had only just finished reading their theatre programmes'.³⁵⁴ David Fingleton described a 'hastily schooled posse of one hundred members of the audience [...] [w]ith their handbags and scarves and the all-too-visible directions from the NT extras in charge of them';³⁵⁵ and Benedict Nightingale described the 'sheepish meanderings, half-hearted handclappings and forlorn bleatings for Coriolanus's banishment' of a well-dressed, prosperous crowd.³⁵⁶ Moreover, the way the spectator-actors were dressed was not the only problem. The production was performed in the 'modern equivalent' of the likely 'Roman/Elizabethan' configuration of costume when the play first came to the stage (a 'melange' singled out for resentment by one London critic, Fingleton). To this end the actors in the roles of plebeian were asked to select lived-in clothing from their own wardrobe. The choice of wardrobe made by some actors jarred with the spirit of the production:

'Hunger' is a word much bandied about, especially at the opening of the play, yet [the] attire of several citizens plants them firmly in the ranks of the

³⁵² Billington, *Coriolanus* Review, *Guardian*, 17th December 1984, repr. *Theatre Record*, IV (1984) (25-6) 1129.

³⁵³ Ratcliffe, *Coriolanus* Review, *Observer*, 23rd December 1984, *Ibid.*, 1129.

³⁵⁴ Wall, 'Problems of Power', *Times Literary Supplement*, 28th December 1984.

³⁵⁵ Fingleton, 'Stage Design', *Arts Reviews*, January 1985. Viewed in the NT Archive.

³⁵⁶ Nightingale, 'Booyaahayaaee', *New Statesman*, January, 1985, repr. *Theatre Record* IV (1984) (25-6), 1135.

middle class. [This] dissipates the tension of acting ‘in hunger for bread, not in | thirst for revenge’.³⁵⁷

Greg Hicks (Tullus Aufidius) was interviewed by Bedford and, in a similar vein, thought that ‘[...] the director [hadn’t] made an opinion about what kind of citizens they are.’³⁵⁸ As this suggests, consistency is all-important – relatively small details had a big impact. Inconsistency in such details seemed to undermine an otherwise balanced vision of the play running through the production. Consistency or the lack of such contexts can be an important marker in the environment of ecoanthropocentric perspectives on live theatrical performances: this was not, despite appearances to the contrary, a divide-blind production in the sense discussed in the Introductory definitions.

In the three productions discussed above, a mix of economics and culture embedded in the contextual theatricality node of the Diamond Model seem to be a key reason for the diminution of dearth on stage. The prominent actor playing the lead role sells tickets and brings in funding, funding is needed for big expensive sets, and the sense of spectacle they inject keeps economic feedback loop moving. Even when an even balance between patricians and plebeians, crowd and individual, informs the production, as it potentially could have in the NT production of 1984, small inconsistencies rooted in a cultural context and contextual theatricality in which dearth awareness is weak (because those involved are relatively prosperous) can still potentially occlude the driving idea, as seems to have happened here. What happened next to Hall’s production – a counter-example that helps throw light on what failed – suggests that a small change somewhere in the production ecosystem can be (ecoanthropocentrically) transformative.

Dearth as Environmental Shapeshifter Centre-Stage

Indirect observation at a distance suggests that the complex system of ideas driving Hall’s production, having only partially succeeded for most of the run, came to fruition in a theatrical peak experience in Athens largely because of the time available to run the experiment repeatedly, and then an opportunity to try it out in a new cultural context. Thus, the benefit of the London experience seemed to come to

³⁵⁷ Bedford, p. 31.

³⁵⁸ Bedford, p.150.

fruition in the two open air performances given in the Herodus Atticus Theatre in Athens in September 1985. As described by Bedford:

[T]he actors were treating the on-stage audience much more as though they were already committed members of the rebellion [...]. Nor was the audience on stage felt to be visually distracting – even Greg Hicks, the company’s most vocal advocate for its removal, agreed that it significantly enhanced the overall look of the production.

The audience-citizens were thus much more embedded in the production and the response from the seated audience was a huge standing ovation. Bedford finds several explanations for this: the involvement of the audience-citizens in rehearsal including a briefing on suitable clothing (so that the briefcases, business suits and evening wear ‘to which critics and cast members quite rightly objected’ were absent); the stunning nature of the space right next to the Acropolis and the company spirit that had developed by then.³⁵⁹ What is interesting about these observations is the sense of increased connectivity between the production team and the audience, and the strengthening of the spectatorial feedback loop in the form of spectators co-opted as citizens. Billington described an engaged audience (copies of the play sold out in bookshops), and a political context better suited to the magnification of political feedback loops:

At the Olivier last December, Hall’s production seemed like a direct comment on the Coal Board closures: two powerful forces unable to communicate, with compromise the first man down. [In Athens it became a play about the dangers of military dictatorship. [...]] Hall’s production, with its brutal Harris Birtwistle music, processional entries, Fascist banners and grey-suited figures who suddenly turned into blood-hungry soldiers could hardly fail to evoke memories of Greece under the Colonels and the perilous nature of democracy.³⁶⁰

In Athens, the ‘melange’ of clothing that had been such a problem in London seemed to work as intended, reinforcing rather than diluting dramatic tension. The hunger-politics dynamic at the centre of the play text (and embedded in Hall’s directorial

³⁵⁹ Bedford, Ch. 9, ‘The Athens Remounting’, pp. 157-163 (pp. 159-60).

³⁶⁰ Billington, ‘Flying the flag in the Acropolis’, *Coriolanus Review*, *Arts Guardian*, Sept 24th 1985. Viewed in hard copy, NT Archive.

vision) seemed to come to the fore once the overall performance ecosystem was working smoothly. Reading between the lines, the reason for the change might have been a shift in the company's culture (towards a closer understanding of what hunger really meant for the plebeians), as well as the change in the physical location. The emotional feedback loops (always likely to be present somewhere in the production ecosystem because of the potentially phenomenological experience for spectators in this interactive production), connected and gave voice to the oppressed Citizens and to dearth as a shapeshifter. In Athens, this was an ecoeffective production in the sense defined in the Introduction. In London, it had not been, even though the potential for it to be so was structurally present. Athens is a very good example of the capacity of theatrical ecosystems to shapeshift in dramatic ways, in this case in response to a shift in the surrounding cultural context.

I chose Thacker's 1994 RSC production at the Swan Theatre – my fourth and final exploration – as an instance of dearth-aligned feedback loops in part because of a chance encounter with a member of the audience.³⁶¹ I mentioned the name of the play and he launched into a detailed description of the opening scene, as if he had seen it the day before rather than two decades earlier. This production was memorable in putting the issue of food security front and centre. Five words handwritten in at the top of Act One Scene One in the Prompt Book – 'Rush of people for corn' – belie the dramatic impact of this device. The opening – in which corn '[poured] like gold from the flies when the play [opened] and [was later] carried off in wooden bowls after the protagonist's banishment'³⁶² – was striking. (See Figure 4.05, below). What happened after the initial down-streaming of corn – the doors to the grain hopper were closed, cutting off the corn from the hungry Citizens – graphically set out dearth politics, setting the tone for what followed.

³⁶¹ I will summarise examples discussed so far at this important moment in the chapter. First example: Farr 2002/3 (with reference to active dearth feedback loops in Ninagawa 2007 and Chiten 2012). Second example: Doran 2007. Third example: Hall 1984 in London with reference to dearth-aware feedback loops in the 1985 Athens revival. The first three examples were selected as good examples of blocked dearth feedback loops. Hall's early 1985 Athens revival unveiled dearth feedback loops embedded in this production, seemingly at the very last moment in a long run of performances.

³⁶² Nightingale, *Coriolanus* Review, *The Times*, 26th May 1994.

Figure 4.05: Corn Pouring from the Sky into the Coffers of the Rich (Production Photograph)



Source: Malcolm Davies Collection, Shakespeare Birthplace Trust Library and Archive, Stratford upon Avon. Image reproduced with permission. For use only in the context of this thesis in hard copy or electronic media.

This opening was enormously effective from the perspective of the dearth narrative at work in the play for several reasons. The immediate reason for this was clever timing. Watching the DVD in the SBT Library and Archive, I noted that the grain fell in a steady stream, audible above the music, for a half a minute (which I timed by stopwatch). A pause followed in which two shadowy figures entered stage left and stage right, closed the two trapdoors in one movement, and left. Next, hungry citizens rushed in, too late. All they could do was scavenge (and immediately devour) odd grains that had escaped, recalling people in television broadcasts gleaning grain on bare, dry fields in famine-struck regions of the world. Driving home the social tensions sketched out in these opening moments, the broken brick-wall and graffiti on another wall behind it depicted an image of the French Revolution hovered in the back ground, so that a reminder of the possibility of civil unrest was ever present.

What was striking about this opening statement was not just the falling grain itself, but what the grain left behind it. An empty space centre stage, in which the presence of food was quite literally occluded by two hinged lids, had become a shapeshifter in the theatrical ecosystem. As a physical representation of dearth, this

device gave added meaning to everything that followed. As Menenius delivered the Fable of the Belly he stood exactly where the grain had fallen, with Citizens in a circle around him. How ironic that he should be standing on the coffer lid, thus sealing this metaphorical stomach shut with his own patrician weight, as he spoke these important words to the plebeian extremities: ‘For the dearth, | The gods, not the patricians make it [...]’. Caius Martius (played by Toby Stephens) also strode across this same void. He stood upon it and paced arrogantly around upon it as he mocked the complaining citizens, wordlessly reinforcing the suggestion that politics, not nature, was the cause of the dearth, and dearth might lead to civil unrest. In this beautifully crafted production, dearth as a shapeshifter (neatly propelled by grain as ‘vibrant matter’) was actively channelled in such a way as to put unspoken words into the protagonists’ mouths, and to inject subversive meanings running in opposition to what protagonists such as Menenius were saying.

Thacker’s second innovation was to stage the play in France in the years leading up to the French Revolution, in which food insecurity brought out by crop failures in the summer of 1788 was one of the catalysts for social unrest.³⁶³ This was a potentially powerful direction in which to take the dearth discourse, a dialoguing of text and life events woven into modern-day performance in search of contemporary meaning. It could be described (to paraphrase Jeremy Lopez discussing theatre criticism) as ‘a construction and interpretation of Shakespearian staging and meaning [arising] out of a dialectical relationship between the immediate, vanishing present and once contemporary past’.³⁶⁴ Although these paragraphs are primarily about ecoanthropocentric (dearth-aware) coherence in this particular production, fragments of evidence with respect to the reception of this aspect of the production are noteworthy in taking the opposite perspective. The cross-connection to starvation, politics and long-run historical cycles of violence was not appreciated by several newspaper critics, who variously described this transposition as ‘fatuous’, ‘tiresome’,

³⁶³ J. Neumann and J. Detwiller, ‘Great Historical Events that were Significantly Affected by the Weather: Part 9, the Year Leading to the Revolution of 1789 in France (II)’, *Bulletin of the American Meteorological Society*, 71 (1) (January 1990), 33-41.

³⁶⁴ Lopez, ‘Academic Theatre Reviewing and the Imperfect Present’ in *Reviewing Shakespearian Theatre: The State of the Art*, ed. by Prescott and Peter J. Smith. *Shakespeare* 6:3 (2010), 349-55 (355). Cited in Edmondson et. al., p.25.

‘incongruous’ and ‘quite the wrong setting’.³⁶⁵ However, all did not agree. For Irving Wardle, the point was:

Famine, warfare, plenty: these are the mainsprings of human action, and they dominate the stage from the opening sight of doors slamming shut on the grain store, to the city gates closing on the blood-soaked hero.³⁶⁶

Whereas, for several of the critics cited above, the dearth narrative was occluded, for Wardle the reverse was the case. As discussed in the section on definitions in the Introduction, and in the course of the thesis, theatrical events are ecosystems, and so, unsurprisingly, meanings can cut both ways.

Mapping Productions of *Coriolanus* for Ecoanthropocentric Alignment

The contrasting approaches to *Coriolanus* in modern productions could be described as a continuum, with star-actor focused productions at one end of the scale, and the collaborative style of the two Japanese language productions at the other extreme. Care is required when generalizing from a small number of productions.

Nevertheless, it seems reasonable to suggest, on the basis of the above discussion, that when the star-actor is at the core of any given production of this play (see Figures 1.05 and 1.13, pp. 40 and 64 respectively), dearth is at risk of being occluded as a shapeshifter in the theatrical event, for *Coriolanus*. At the other end of the scale, when the star actor matters less than the ensemble of actors, the reverse seems to apply. Between the two extremes, two of the productions – the 1984/5 NT production in Athens and the 1994 RSC production – seemed to put a strong directorial vision at the core of productions with stellar actors in the leading roles, and in both cases, dearth as a shapeshifter was visible in the context of strong lead-actor performances. It is worth pointing out that in both cases the director took risks in casting in support of his innovative approach: Hall in the way he cast the plebeians, and Thacker in casting a young Toby Stephens. Both therefore took risks with balance in order to find balance, in effect playing with the inherent instability of (theatrical) ecosystems.

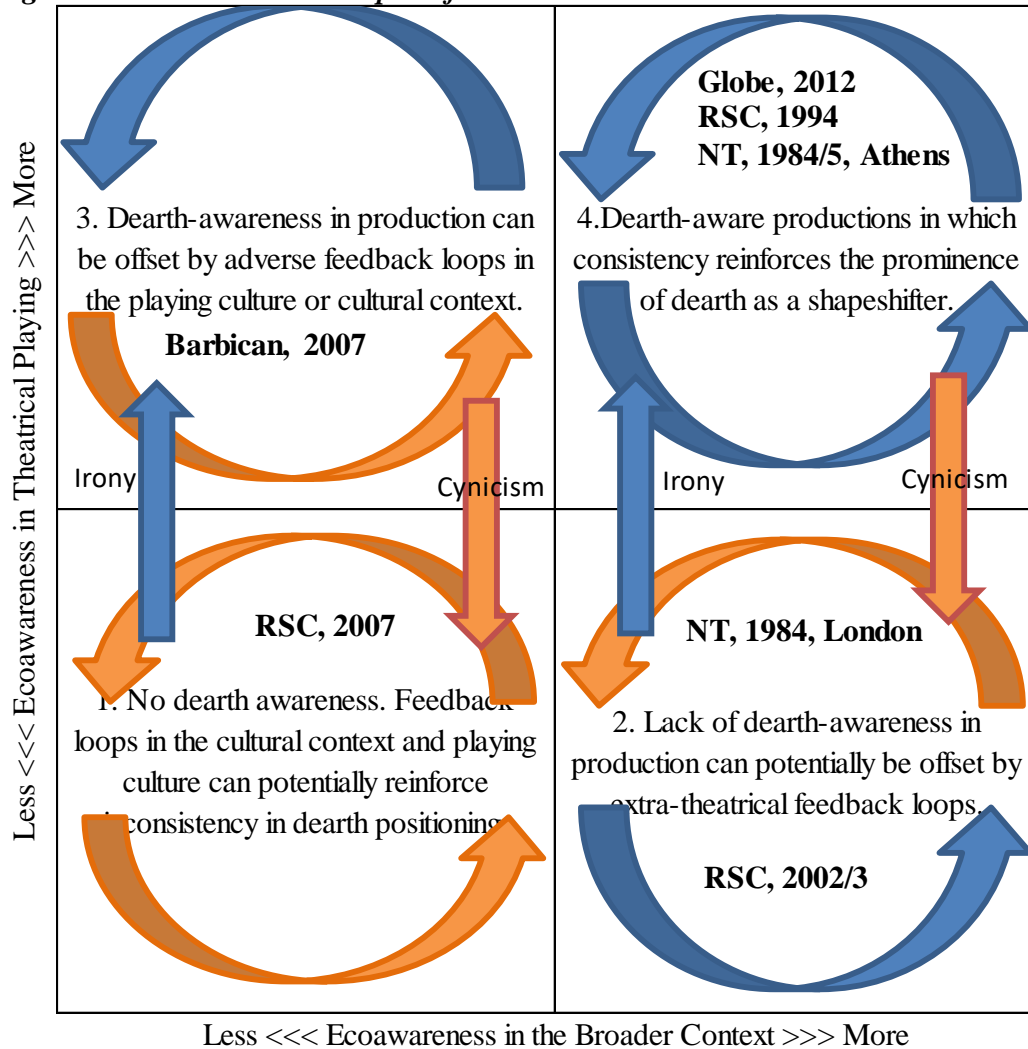
³⁶⁵ *Theatre Record* repr. reviews by Michael Coveney, *Observer*, 29th May; Spencer, *Daily Telegraph*, 27th May; Bill Hagerty, *Today*, 10th June and John Peter, *Sunday Times*, 29th May 1994. Vol. XIV (11)689-693.

³⁶⁶ Wardle, *Coriolanus* Review, *Independent on Sunday*, 29th May 1994 repr. *Theatre Record* XIV (11), 690.

This chapter potentially carries an important message for intending ecotheatre practitioners: the star-actor system, which can be seen as a runaway feedback loop driven by economics in itself, seems to be aligned with the resource-heavy economic cultural context driving climate change and environmental degradation more generally. Thus, in the context of theatrical productions, when the star actor system is at work, it will tend to run counter to the presence of the environment as a shapeshifter on stage. To the point, the productions considered above can be placed in the alignment mapping of Chapter One, further discussed in Figure 4.01 (p. 134), and shown below in Figure 4.06.

Four productions discussed above as thematically coherent from an ecoanthropocentric perspective, are placed in Quadrants Three and Four of the earlier mapping (Figure 4.01, p. 134) respectively. The three productions in Quadrant Four took place in a cultural context in which dearth awareness is likely to be heightened in the cultural context owing to fluctuations in the economic cycle, or, in the NT Athens case, because of on-location politics. The 2007 Barbican production, in contrast, took place mid-bubble but nevertheless balance between patricians and plebeians was at the core. I have placed three productions discussed above in terms of their inconsistency in the bottom two quadrants. Two of these productions took place at times when dearth awareness in the cultural context was likely to be raised because of contemporary events (RSC 2002/3 and NT 1984 in London), and one (RSC 2007) took place mid financial bubble.

Figure 4.06: Dearth as a Shapeshifter – Present or Absent?



Overall, there is no clear pattern with respect to the influence of short-run shifts in the cultural context, such as economic cycles, on the extent to which productions of *Coriolanus* are dearth-aware. A possible interpretation is that the contextual theatricality node of the Diamond Model is more important than short-run shifts in the cultural context for the positioning of dearth as a shapeshifter on stage.³⁶⁷ In terms of the definitions in the Introduction, live theatrical performances, as ecosystems, are inherently random, unpredictable and uncontrollable. If ecoefficacy in the above examples is interpreted as successfully putting dearth on stage as a shapeshifter, then what seems to matter most is the (potentially ecoanthropocentric) culture shaping the productions. The change in Hall's *Coriolanus* in Athens could

³⁶⁷ Similarly impermanent effects are seen in the context of economic cycles on resource footprints in Figure 1.01 (p. 35).

be seen as an instance of the environmental shapeshifter at work, outside the overt control of humans in the system.

In a similar vein, forces that could nevertheless shift productions into or out of Quadrants Three and Four are indicated by the arrows, labelled respectively irony and cynicism. Bedford's ironic comments on the 1984 National Theatre production reveal dearth as a potential shapeshifter, perhaps through the production's reception, even as the shapeshifter struggled to be heard from a production perspective. The 1994 critical reactions unaccepting of the relevance of the French Revolution to the hunger discourse running through the play run in the opposite direction to dearth as a shapeshifter on stage from the perspective of reception. It is possible that contextual theatricality was playing a part in such responses, if they were reflecting fixed ideas of what should and should not be done with Shakespearian plays.

Chapter Four: A Story of Balance/Imbalance in the Ecosystem of the Theatrical Event

Summing up, as an early-modern dearth play in modern productions, *Coriolanus* is an important case study in the context of the ecoanthropocentric perspective running through this thesis. This is because, in being about dearth (a consequence of ecological volatility and politics in combination) this play can be described as foregrounding social problems in which the environment is palpably at work as a shapeshifter. In this respect, this chapter also contains the subtext at work in the context of plays such as *Wastwater* (or indeed *Buried Child* – see footnote 153 in Chapter Two, p. 83).

In the above analysis productions that unbalanced the play by giving too much emphasis to the figure of Coriolanus, or too little to the plebeians, can be argued to have pushed dearth to the margins, thereby ironically replicating an element of the problematic hubris at work in Coriolanus the flawed character. Productions that achieved a better balance by giving the plebeians a suitably prominent place in the whole not only made room for the environment as a shapeshifter on stage in a way that enhanced the production for its spectators. They also contested a cultural context in which the power-systems that distort relationships between society and its ecologically-provided food sources can also distort (eco)theatrical ecosystems. Having noted above that short-run fluctuations in the cultural context (such as economic cycles) do not appear to influence the relative

prominence of dearth as a shapeshifter in *Coriolanus* either way, structural issues in the cultural context or playing culture (such as a predilection for the star player model) are likely to be a different matter.

An interesting and possibly significant sub-text in this chapter is the presence of a Japanese-style production in English hands in the group of inconsistent productions, the presence of two Japanese-speaking productions in the list of consistent, thus, dearth-aware productions, and the presence of the NT 1984/5 production in both groups (London and Athens respectively). In the opening sections of this chapter, I suggested that commonalities in early modern and modern food insecurity awareness would be supportive of the reappearance of dearth as a shapeshifter on the modern stage. Another possibility suggested by the later sections of the chapter is that commonalities in English economics and power structures in both early modern and modern cultural contexts were and are a feedback loop running against dearth-awareness. Returning to an important Chapter One argument, rather than the seemingly benign idea of cultural change, a cultural dislocation, analogous to the dislocation at work when Shakespearian plays are put into a different cultural context, may be what is required to put the environment on stage as a shapeshifter, as opposed to mere scenery.

Chapter Five. Natural Disasters as Ecotheatrical Shapeshifters

The rising frequency and scale of natural disasters charted in Chapter One (Figures 1.02 and 1.03, pp. 36-7) is palpable evidence of the presence of the environmental shapeshifter in people's daily lives. Natural disasters and their effects can be seen to be an output of (and an input to) the ecosystem of feedback loops inextricably woven through broader social and environmental ecologies, and reperformed in the ecologies collectively represented in the charts and maps of Chapter One. Three interconnected loops are apparent in the ecodata represented in the charts. The rise in the frequency and scale of such disasters – increased weather volatility – is predicted to be typical of a warming climate change by the scientific work of the Intergovernmental Panel on Climate Change and other scientific bodies. Human energy systems have double-edged effects in that some of them lead directly to significant natural disasters (such as the Deepwater oil spill and the Fukushima nuclear disaster), and, in another feedback loop, fossil-fuel driven systems are implicated in climate change, also potentially an indirect cause of such disasters. In this way, natural disasters inevitably cut through the nature/culture divide, as a shapeshifter in real life.

‘Don’t You Want to be Global Warm and Happy Ever After?’

The purpose of this chapter is to seek out and think about the potential effects of natural disasters on the environmental shapeshifter on stage. I begin by identifying prominent disasters whose influence might be reasonably readily identified, and, in that context, consider several possibilities, such as new writing or pre-existing plays performed in response to such events, and longer-term ecotheatrical reactions to the events and their context. A closer look at the CRED ecodata plotted in Figures 1.02 and 1.03 (pp. 36-7) finds that a handful of years stand out, in terms of damage done: 1995, 1999, 2004, 2005, 2010, 2011, 2012 and 2013, years corresponding to the Kobe Earthquake, the Boxing Day Indian Ocean Earthquake and Tsunami, Hurricane Katrina, the Haiti Earthquake and Deepwater, the Sichuan Earthquake, and the Fukushima Earthquake and Tsunami. Sometimes, as will be seen below, theatre is chosen by those affected by disasters as a way of responding to them – theatrically playing with the event and the aftermath may well be healing for those involved. These facts suggest that the transatlantic observations regarding the occlusion of the

environment on stage made between 1994 and 2012 by writers such as Chaudhuri,³⁶⁸ Cless,³⁶⁹ and Arons and May,³⁷⁰ and discussed in Chapter Two, may not always represent what is happening in the theatre industry.

Recently prominent examples of environmental disasters – the Boxing Day 2004 tsunami, the August 2005 tropical cyclone known as Hurricane Katrina, the April 2010 Deepwater-Horizon oil spill and the March 2011 Fukushima Daiichi nuclear disaster – are discussed in the context of theatrical performances in this chapter. Each of these events was woven through with a strong social narrative that would be likely to forge strong emotional connections in real life, as predicted by the theories of Frijda. The communities around Fukushima worked impressively together to endure post-quake conditions yet, ironically, the high-water mark of previous tsunamis had been above the top of the protective wall.³⁷¹ But for the human tendency to forget so-called tail risk (extreme events having a low probability of occurring) this disaster might have been averted by a more effective system of risk mitigation in the form of higher walls. Hurricane Katrina meanwhile demonstrated the propensity of natural disasters to affect the less economically well off to a disproportionate extent – those who could afford to do so fled before the event. It might be less surprising to find Chaudhuri, writing in 1994 as the accelerating trend in the CRED data in Figures 1.02 and 1.03 (pp. 36-7) was taking hold, refer to an occlusion of ecological meanings in productions of plays containing relatively obvious ecological themes such as Ibsen's *An Enemy of the People* and Samuel Beckett's *Endgame*. Nevertheless, post tsunami and cyclone, oil spill and nuclear melt-down, the persistence of the narrative of ecological oblivion in the field of ecocriticism such as the following seems unlikely:

[At] the beginning of the second decade of the twenty-first century, ecology and environment are not only underrepresented and underthematized on the

³⁶⁸ Chaudhuri, 1995, p. 55.

³⁶⁹ Cless, 2010, loc. 118.

³⁷⁰ Arons and May, eds., *Readings in Performance and Ecology* (New York: Palgrave Macmillan, 2012), p. 1.

³⁷¹ James M. Acton and Mark Hibbs, 'Why Fukushima was Preventable', *Carnegie Papers, Nuclear Policy* (Washington: Carnegie Endowment, 2012), March.

<<http://carnegieendowment.org/2012/03/06/why-fukushima-was-preventable-pub-47361>>.

This chapter contests such views by considering theatrical reactions to natural disasters in two respects. First, it continues the discussion at work in the context of selected modern productions of *Coriolanus* in Chapter Four. There, there was no question about the presence or otherwise of the environment as a shapeshifter, because of the importance of dearth feedback loops in the overall structure of the play. Whether dearth was centre stage or marginalised depended on the mindset informing the production. The first part of this chapter, similarly, identifies theatrical reactions to extreme events as further evidence that the environment is not always occluded as a shapeshifter on stage. On the contrary, it is a source of action that ‘has efficacy’, to use the phraseology of Jane Bennet as discussed in the Introduction. The next few paragraphs suggest that the above-named events and the human behaviour observable in their context have an influence on theatre – shaping what is played where, and how the relationship between human beings and the natural environment is perceived, received and presented in theatrical productions connected, intentionally or otherwise, to such events. I note that the work in this chapter is likely to under-represent theatrical responses to such catastrophes. Major natural disasters may have more than a short-run effect, thus evidence of a connection between certain natural disasters and specific theatrical events (such as the connection I made as a spectator between *Waiting for Godot* and Fukushima in Chapter One) may be hard to identify when time lags are at work. The second part of the chapter focuses on the idea of ecotheatrical efficacy, in the context of an ecotheatrical campaign seeking to interrupt the flow of money between the arts and oil in the aftermath of and as a reaction to Deepwater. In terms of the definitions in the Introduction, the campaigners are shapeshifters, using live theatrical performance to produce a shift in the broader socio-environmental ecosystem. By trying to occlude the feedback loop connecting arts funding and oil, they hope to have an influence on some of the energy feedback loops described in the first paragraph, and represented in Saussay’s data, plotted in Figure 1.04 (p. 39).

³⁷² Arons and May, p. 1.

New Writing Prompted by Natural Disasters

Considering the aforementioned challenge of timing, new writing prompted by natural disasters is a good place to begin this journey of exploration. New writing has arguably always been prompted by environmental events, major and minor. Going back to earlier years, storms drive events in several Shakespearian plays; harvest failure and hunger are visible as political shapeshifters in *Coriolanus*; Chekhov's play *The Wood Demon* seems to have been a response to 'deforestation and the consequent degeneration in human life'.³⁷³ Donald Rayfield describes cherry orchards as 'go[ing] back to Chekhov's childhood memories of Russia before the deforestation of the 1880s' and refers to a 'poignant biographical link' to an orchard of 50 cherry trees Chekhov planted in 1892, that were chopped down by a timber dealer seven years later.³⁷⁴ Some disasters seem to cast a long shadow. Post Deepwater Horizon, between 2011 and 2012, Caridad Svich developed the play *The Way of Water*, which depicts the struggle of a small group of people to survive after the spill. Having toured internationally in the form of readings, this play was published in 2016.³⁷⁵ In March 2014, Leigh Fondakowski's docudrama *Spill* opened at the Reilly Theatre, LSU.³⁷⁶ A further University of Florida School of Theatre and Dance production took place on January 29th 2015.³⁷⁷ A highly rated documentary relating to the Deepwater oil spill, *The Great Invisible*, directed by Margaret Brown, also appeared in 2014,³⁷⁸ and most recently the film *Deepwater Horizon*, directed by Peter Berg, was launched in September 2016. The discussion below suggests it to be highly unlikely that this is the last word on this topic.

New plays relating to major natural events can also appear many years on from such events. For reasons of space this chapter does not focus on long-run threads of meaning in theatrical events relating to natural disasters. However, their

³⁷³ Vera Gottlieb and Paul Allain, eds., *The Cambridge Companion to Chekhov* (Cambridge: Cambridge University Press, 1960, repr. 2010), loc. 4921.

³⁷⁴ Rayfield, *The Cherry Orchard: Catastrophe and Comedy* (New York: Twayne Publishers, 1994).

³⁷⁵ Svich, *The Way of Water* <<http://caridadsvich.com/plays/fulllength/the-way-of-water>>.

³⁷⁶ Chelsea Brasted, "'SPILL'", Play Inspired by Deepwater Horizon, Premieres at LSU's Reilly Theatre', *Times-Picayune*, 6th March 2014 <www.nola.com/entertainment/baton-rouge/index.ssf/2014/03/spill_play_inspired_by_deepwater>.

³⁷⁷ University of Florida Press Release, 'New Play, *Spill*, Gets its Florida Premiere at the University of Florida and Sheds Light on the Deepwater Horizon Oil Spill, on *UF in the Loop*, 11th December 2015.

³⁷⁸ Jordan Hoffman, 'The Great Invisible review: an eloquent return to Deepwater Horizon', *Guardian*, 30th October 2014 <www.theguardian.com/film/2014/oct/30/the-great-invisible-review-an-eloquent-return-to-deepwater-horizon>.

importance as feedback loops in the ecosystemic cultural context informing events, and their potential as a research topic, is acknowledged here as an area for further research. There are many reasons why such threads are present. Sometimes it takes a long time for people to digest what has happened in extreme, intensely emotional events. Sometimes physical and psychological consequences of environmental disasters continue for a very long time, as the theories of Frijda suggest. Conditions in the cultural context can trigger memories, reawakening emotional responses to the distant past. Hence, the ‘landscape of famine’ running through the plays of Samuel Beckett.³⁷⁹ Other examples include Tom Murphy’s 1968 play *Famine*, which is staged during the same nineteenth century Irish Famine, and Waters’ climate change play *The Contingency Plan*, which draws on the historical experience of the UK 1953 east coast floods.³⁸⁰

Plays Performed in an Overt Response to Major Ecosystem Events

Waiting for Godot stands out as a play that regularly appears as a response to natural disasters, suggesting that I am unlikely to have been the only audience member who connected this play to environmental catastrophe in the Arcola production described in Chapter One. Considering how long the gestation of theatre productions can be, and considering how soon after the reference event some of the productions cited below appeared, one possibility is that *Godot* may be a means of digesting events, or externalising deep feelings safely. Hurricane Katrina spawned a number of productions of the play as theatrical responses. Classical Theatre of Harlem staged a 2006 production on a partially submerged set, trapping Didi and Gogo on a rooftop, thus recalling post-Katrina roof-top strandings widely seen in the global media as the disaster unfolded.³⁸¹ In 2007, Director Paul Chan embedded *Godot* ‘in the very fabric of the [post Katrina] fabric of New Orleans’.³⁸² In 2011, the Loyola University New Orleans Department of Theatre and Dance set their production of *Godot* in the post-Deepwater Louisiana Coastal wetlands.³⁸³ Returning to

³⁷⁹ Roach, 2002.

³⁸⁰ Met Office, ‘1953 East Coast Flood – 60 Years On’, 2013, www.metoffice.gov.uk/news/in-depth/1953-east-coast-flood.

³⁸¹ Neil Genzlinger, “‘Waiting for Godot’ performed by the Classical Theatre of Harlem”, Review, *New York Times*, 3rd June 2006, www.nytimes.com/2006/06/03/theater/reviews/03gogo.html

³⁸² Chan, *Waiting for Godot* in New Orleans, Creative Time, 2007.

<www.creativetime.org/programs/archive/2007/chan/welcome.html>.

³⁸³ Dr Laura Hope, dir., *Waiting for Godot*, Loyola University New Orleans Department of Theatre and Dance, 16th to 20th February 2011 <<http://cfma.loyno.edu/theatre/performances/waiting-godot>>.

Fukushima, the Kamome Machine Theatre Group filmed a staging of *Godot* against the back-drop of the wrecked nuclear power station and within reach of its radioactive emissions.³⁸⁴ *Waiting for Godot* is only one example, but it seems to be particularly prominent.

Detailed evidence of the pleasure, sympathy, empathy and identification (and perhaps their opposites) encountered by spectators involved in these productions is unavailable to me. However, I encountered two promising fragments. First, a *New York Times* review of Chan's *Godot*:

“Let us not waste our time in idle discourse! Let's do something while we have the chance! [It's not every day that we are needed. Let us make the most of it before it is too late.” When these words rang out in the Lower Ninth Ward and in Gentilly last month, every person knew what they meant, in that place, at that time. And Mr Chan knew, which is why we were there in the first place, participants in an art project that had [...] objects, words, images, ideas, emotions, discourse, actions, lessons, beauty, politics, criticality and generosity.³⁸⁵

New York Times art critic Holland Cotter describes a strong emotional connection between the performance, and the local community (also the audience) directly impacted by environmental extremes, and politics in the form of anger about the slow arrival of help and support. Chan's *Godot*, as described in this reaction, seems to have set moving a sense of action readiness (what better definition of the environment as a shapeshifter could there be?), thereby recalling the theories of Frijda. The second significant review turned up by my searches was a chilling observation on the *YouTube* website. The Japanese theatre company Kamome Machine staged (and filmed) a five-minute production of “Waiting for Godot”@Fukushima (in Japanese with English subtitles) near a Fukushima cross-roads. They performed behind the bollards in place at the junction to prevent traffic from coming into the danger zone, pacing around as they waited for Godot on a section of tarmac visibly fractured by the earthquake. A soundscape of soft piano music, cicadas and the roar of passing cars and trucks intruded whenever they

³⁸⁴ Kenneth Maxwell, ““Waiting for Godot” – in Fukushima’, in *The Wall Street Journal (Japan)*, 16th August 2011 <www.blogs.wsj.com/japanrealtime/2011/08/16/waiting-for-godot-in-fukushima/>.

³⁸⁵ Cotter, ‘A Broken City. A Tree. Evening’ *New York Times*, Art & Design section, December 2nd 2007 <www.nytimes.com/2007/12/02/design/02cott.html?pagewanted=all>.

stopped speaking. They were safe from traffic but not noise pollution, particulate emissions, and, most ominously, not safe from radioactive fallout.³⁸⁶ The YouTube commentator identified with the physical danger the actors in the Fukushima *Godot* put themselves in:

Waiting for Godot. Yes, that's a very fitting image. [...] It might have been even more stunning to have a Geiger counter/meter alarm going off at the same time there, as they do! I'm sorry the young actor went barefoot and laid down on that surface! The ground at 20km from the Fukushima plant is highly radioactive. It has been measured at over 20,000 CPM, which is dangerous! Fukushima makes Chernobyl look like a walk in the park.³⁸⁷

Considering the effort taken by the acting company to put themselves on that stretch of road (travel would have been difficult because of damaged infrastructure and post-disaster chaos), it seems clear that the actors took the risk of radioactive exposure without similarly damaging their spectators, with the intention of effectively shocking their potentially far-flung audiences.

Frijda's Long-term Situational Meaning Structures on Stage

The theatrical tactic described above, in which the players put themselves in harm's way, viscerally connects the spectator to a long-running horror-story, even though these spectators were protected by distance. Fukushima is a re-awakening of long-past situational meaning structures (to use Frijda's term) to which 'habituation' is an impossibility because the damage goes on for generations: not just Chernobyl, but also the horrors of Nagasaki and Hiroshima. Such threads of meaning observed from afar, as in the above reaction, can continue to shock for many years. For local people affected by the disaster, there would be an immediate connection to the 'hibakusha' – Hiroshima's children (and, in the Skriker's words, perhaps children's children's children) – living with the slur of genetic damage sustained in the first atomic bombs.

Moving on to a different example, the best-known overt theatrical response to the 2004 Boxing Day tsunami is *Children of the Sea*, which retells the story of Shakespeare's *Pericles*. This promenade production was first staged at the

³⁸⁶ Kamome Machine, "'Waiting for Godot'@Fukushima", YouTube, 10th August 2011 <<https://www.youtube.com/watch?v=GeEPEUIRp14>>.

³⁸⁷ Ohiohomey, Comment appended to the Kamome Machine film of *Waiting for Godot*, YouTube, by a member of the virtual audience.

Edinburgh International Fringe festival in 2005.³⁸⁸ Directing and writing this production, Toby Gough had the narrator in the original play, Gower, '[tell] the story of Pericles to Sri Lankan children living in a makeshift orphanage.'³⁸⁹ For its audience, it is likely that dramatic impact achieved through an imaginative fusion of fact and fiction had both psychological and physiological effects. As reported by Genevieve Love, Gough's production drew attention to the strain the unfamiliar climate might put on players used to tropical temperatures. 'Of course, the actors [playing the traumatised children] actually were cold and wet'.³⁹⁰ In this production, Pericles carried photographs of the missing Marina through the audience, recalling the visceral impact of similar scenes of tsunami survivors searching for loved ones, seen by global media audiences after the event. This use of photographs would be likely to bring with it many emotional layers connecting to shattering events in which people lost loved ones in real life. It is not dissimilar, as a device, to the use of iconic images (such as the single tree, as discussed in the context of the *Arcola Godot* in Chapter One of this thesis), or the invisible presence of nuclear contamination under bare feet, discussed above, which weave past disasters through present ones thereby increasing their emotional punch on stage. Indeed, two years on from the tsunami, the 2006 Kneehigh production of *Cymbeline* made use of the same powerful trope. As described by Kirwan:

Larger set-pieces included an extended wordless opening, with flowers, photographs and teddies pinned up to the set, in remembrance of Cymbeline's kidnapped children [...].³⁹¹

This photographic device is likely to be very powerful from the perspective of the audience watching *Children of the Sea*, for, as widely reported in the media, such photographs have been used time and again by people desperately trying to find

³⁸⁸ Gough's *Children of the Sea* ran from 19th August to 28th August at the 2005 Edinburgh Fringe Festival. See Genevieve Love, 'Tsunami in the Royal Botanic Garden: Pericles and Children of the Sea on the Edinburgh Festival Fringe', *Borrowers and Lenders, Journal of Shakespeare and Appropriation*, 2 (2) (2006) Fall/Winter <www.borrowers.uga.edu/781469/pdf>.

³⁸⁹ Kimberly Dachel, 'Pericles, Prince of Tyre, by William Shakespeare, directed by Kathryn Hunter; Children of the Sea by Toby Gough', Review, *Theatre Journal*, 58 (3) (2006), 'Hearing Theatre' (Oct), The John Hopkins University (495-498), 496.

³⁹⁰ Love, 2006.

³⁹¹ Kirwan, 'Cymbeline (Kneehigh) @ The Swan Theatre', *The Bardathon*, 21st September 2006 <<https://blogs.nottingham.ac.uk/bardathon/2006/09/21/cymbeline-swan-theatre>>.

survivors in other situations. Such photographs used on stage are not always used specifically to put the environment on stage. However, they act as a focal point in an ecosystem of remembered loss, magnifying it, and making it meaningful to audiences by connecting to the rich tapestry of past (thus, embodied experiences) they bring to the theatre with them.

The other side of the coin from theatrical productions having the intention of bringing ecological themes such as natural disaster to the fore for their audiences is the potential for productions planned or already under way to gain new meanings as the context around them changes. Theatre reviewer Dachel, discussing *Children of the Sea*, above, refers to a contemporaneous production of *Pericles Prince of Tyre* directed by Kathryn Hunter at the Globe Theatre, London:

The Globe's productions made its connection without explicitly addressing current events [allowing the audience to make the connection on its own]. The only direct expression made by the company emerged during a talkback [by the Globe's then artistic director, Mark Rylance, who] acknowledged the tsunami and recent hurricanes as he discussed the 'seasons of storms in the little Globe and the big globe as well'. Globe's [2005] season included *Pericles* as well as [Peter Oswald's adaptation of *The Rope* by Plautus], *The Storm*, and Shakespeare's *The Tempest*.³⁹²

Everyone might not have responded as Rylance did – he was a signatory of the April 2012 letter of protest against BP's sponsorship of the RSC,³⁹³ thus can be described as relatively ecoaware. Rylance's BP letter connects him to the next part of the chapter, which is about an important feedback loop that began in the audience. One spectator set out to build up an ecotheatrical runaway warming system in the form of a campaign.

Contextual Theatricality and Cognitive Dissonance as an Ecotheatrical Shapeshifter

In the aftermath of the Deepwater Horizon disaster, a group of players known initially as the Reclaim Shakespeare Company, and now calling themselves BP or Not BP, is running a protest (still ongoing) about the Royal Shakespeare Company (RSC)'s funding relationship with BP. In 2012, the group protested against the BP

³⁹² Dachel, p. 497.

³⁹³ Mark Rylance and Signatories, 'Letter to the *Guardian* – Oiling the Wheels of the Shakespeare Festival', 23rd April 2012 <www.theguardian.com/stage/2012/apr/22/oiling-wheels-shakespeare-festival>.

sponsorship of the World Shakespeare Festival and other activities by intervening theatrically just before live performances. What was BP or Not BP responding to? Pages four and five of the Festival Guide are a good place to start in the search for a catalyst.³⁹⁴ These pages describe three plays presented within the Festival as a trilogy– the ‘shipwreck plays’ – comprising *The Comedy of Errors*, *Twelfth Night*, and *The Tempest*, under the rubric ‘What country, friends, is this?’ The BP logo is just to the right-hand side of this title, with a picture of a stranded, rusting boat on a beach immediately below the logo. This single fact about the programme connects to the terms defined in the Introduction in a number of ways. As a shapeshifter, the logo reveals the ecosystem in which oil drilling and theatre are both situated, in a manner designed to connect to powerful emotional feedback loops. On the evidence of what follows in this chapter, putting this logo into that context was ecoeffective in ways neither BP nor the RSC seem to have expected. Ecoefficacy turns out to be possible in the absence of an ecoanthropocentric mindset in the production team, thereby demonstrating that the theatrical ecosystem is not controlled by any single entity.

The Festival Guide describes this production of the trilogy as exploring themes of ‘migration, displacement and exile’. Two natural disasters in which human energy systems (oil exploration and nuclear generation) played a part took place in the two years before the Festival. Deepwater and Fukushima both brought about deracination, displacement and, for those directly affected, exile from their former way of life. It is difficult not to see irony running through the cultural context and contextual theatricality informing this framing of the plays. One reviewer described this as follows:

In a recession arts organisations are doubtless thankful for any sponsorship, but it’s ironic that an offshore disaster triptych should be backed by BP. Two protesters climbed on stage and distributed leaflets at the Press Night performance of *Twelfth Night*. Still, overseeing director David Farr’s angle is politically correct. He highlights how Shakespeare’s characters, landing on foreign strands, suffer from xenophobic persecution, lose their sense of identity, make new lives for themselves, refresh stagnant societies or problematically colonise.³⁹⁵

³⁹⁴ *World Shakespeare Festival Guide*, April-September 2012.

³⁹⁵ Kate Bassett, *The Shipwreck Trilogy (The Comedy of Errors, Twelfth Night, The Tempest)* Review, *Independent on Sunday*, 29th April 2012, repr. *Theatre Record* XXXII (09), 478.

What is interesting about this comment is the impression of cognitive dissonance running through it. On the one hand, the play connects to the threads of environmental meaning described in the second half of this quotation. On the other, the critic seems to feel the need to defend Farr's approach as 'politically correct', in the sense that he did not avoid potentially sensitive topics. And yet, it may be the case that the critic is avoiding the environmental issue when she discusses topics closely associated with immigration rather than with the environmental damage that sometimes forces people to move to 'foreign strands'. This seems to imply that the contextual theatricality of this event (represented in BP's sponsorship) is somehow not politically correct. For this critic, this aspect of the RSC's contextual theatricality did not hold back the creative process of meaning-making on stage. However even if the director and some critics successfully ignored the contextual sub-text potentially at odds with the production, the audience may not have. A short video explaining the origins of the BP or Not BP suggests they lie in the audience – the introductory speaker describes how angry she felt about the sponsorship. It is unlikely these feelings would have expressed themselves had she not met a friend who was looking for an opportunity to do some acting after a ten-year break.³⁹⁶

Funding at the Core of the Ecotheatrical Feedback Loop

Spectators attending theatrical events funded by oil are inevitably complicit in the ecosystem of oil, climate change and natural disaster described in the opening paragraph to this chapter, even if they had no direct say in the matter of the funding itself. Should such spectators not be aligned with the positioning of oil funding at the core of the theatrical metabolic chart depicted in Figure 2.01 (p. 79), they can choose not to buy tickets, and not to attend the production. This is unlikely to be an effective tactic, in the sense that it will change nothing unless the audience en masse takes the same decision. Funding (rather than the environment) at the core of the feedback loop drawn in Figure 1.13 (p. 64) is the shapeshifter, effectively occluding certain ecological meanings, but also injecting other ironic ecologies. Enter BP or Not BP, representing the outraged spectator, with a series of imaginative stage

³⁹⁶ BP or Not BP, 'New Film: Behind the Curtains of the Reclaim Shakespeare Company', *BP or Not BP*, 12th November 2012 <bp-or-not-bp.org/2012/11/12/new-film-behind-the-curtains-of-the-reclaim-shakespeare-company/>.

invasions. In the context of this thesis, the theatrical tactic this group employed is particularly interesting as a series of potentially ecotheatrically effective performances targeting a theatrical context – the so-called *Shipwreck Plays* – in which the double-edged quality of ecosystems is all too clear. On the one hand, fossil fuels as an environmental shapeshifter are at the core of the production of the *Shipwreck Plays*, in the sense that such funding flows through the several feedback loops supporting the theatrical ecosystem financially. On the other hand, the specifically ecological meaning of storms eventually magnified by fossil fuel use is contradicted by the very presence of the BP logo on the Festival Guide and in theatre programmes. Embedded in this production, at one and the same time, is the runaway warming system (climate change and volatile weather systems potentially attributable to greenhouse gas emissions) and the occlusion of potentially protective ecotheatrical feedback loops because of the tacit support of fossil fuels embedded in the funding structure. The question is whether BP or Not BP could block this system of feedback loops.

Each of the interventions by BP or Not BP was itself a small theatrical event. Immediately before a main house performance a small number of their performers staged a short piece of radical theatre. The players played with the words of Shakespeare in the short songs and scripts. They represented peaceful protest as an aspect of the playing culture (playfully accommodated by the RSC whose stage they briefly encroached upon). At the same time, on behalf of those holding similar views to their own in the playing company and the audience, they contested an aspect of the cultural context in which large corporations sometimes fund the arts. The timing of their interventions made them noteworthy: the first took place on 23rd April (the day on which Shakespeare's birthday is conventionally marked) at the start of the World Shakespeare Festival. *The Tempest* was, perhaps appropriately, the launch of the BP or Not BP campaign. The aim, as described by BP or Not BP itself, was 'to challenge the RSC over its decision to accept sponsorship from BP in the wake of the Deepwater drilling disaster and [...] decision to start extracting [...] tar sands in Canada'.³⁹⁷ The second took place on Press Night, April 25th, at the performance of *Twelfth Night*, the third on June 27th just before the *Comedy of*

³⁹⁷ BP or Not BP, 'Protesters take to the stage at RSC over BP Sponsorship', *BP or Not BP*, 23rd April 2012 <bp-or-not-bp.org/2012/04/23/protesters-take-to-the-stage-at-rsc-over-bp-sponsorship/>.

Errors and there was another on 29th September, once again just before *Twelfth Night*. There is enough evidence from three sources to suggest that they succeed in making their point and sparking debate: the reports of BP or Not BP; comments in reviews; and comments in the Royal Shakespeare Company (RSC) Stage Manager's Reports.

How Ecoeffective were the Interventions of BP or Not BP?

If the ad hoc performances of BP or Not BP did not engage the spectators in the auditorium (and indeed some members of the production team) as theatrical performances in themselves, it is likely that they would be less effective. However, they had an important point working in their favour from the first moment: following the theories of Frijda, they would need to connect to something people cared about. This, in this context, could be nothing less than the widely respected British institutions of William Shakespeare and the Royal Shakespeare Company. The 23rd April intervention just before *The Tempest* can still be viewed on BP or Not BP's website, and on YouTube.³⁹⁸ From the evidence on the recording there seems to be little doubt it was an effective performance from the perspective of the audience. The odd chuckle is audible as the performance begins. There is no heckling during the speech – the audience is listening in between the small noises of people still coming to their seats and settling down before the main performance. On the final words of the speech, “Out damned logo” laughter, a few cheers and a few booing noises are audible on the recording. When the audience hears the invitation to tear the BP logo from their programme there are a few shouts (hard to say whether positive or negative), one possible cry of ‘No’, a sound that could have been ‘shhh’ or ‘sssss’, and a cry of ‘Rubbish’, all almost drowned out by the general buzz created by this invitation. Perhaps the most telling point (apart from the silence during the short performance) is that the final applause (in response to ‘We hope you liked tonight's show’) was enthusiastic and smiling faces were visible on camera. Whatever their view on the subject matter, the audience seemed to have enjoyed the interlude.

³⁹⁸ BP or Not BP, *ibid*. The film ‘BP or Not BP? The Debut Performance of the Reclaim Shakespeare Company’, is attached to the article <bp-or-not-bp.org/2012/04/23/protesters-take-to-the-stage-at-RSC-over-BP-sponsorship/>.

Moving on, the 25th April intervention is wittily entitled ‘We strike again, with green and yellow melancholy’ on the BP or Not BP website, and further explanation of the rationale for the interventions is given in an article that cites one of the performers:

These days it’s hard to connect to the horror of what’s being done – possibly in our name – by oil companies. [...] By singing about these dark times, we wanted to bypass the head and engage the heart of each audience member. I don’t think we reached everyone but many applauded our necessary folly as we left the theatre, and we had the sense that there are many RSC employees who would dearly love to see the BP logo missing from posters for future productions.³⁹⁹

Such supporting material adds context to what the protesters are doing and spells out the message further, alongside the video recording. Another perspective is provided by reviews. Newspaper critic Clare Brennan described the *Twelfth Night* 25th April performance as follows:

Before the house lights went down, two men climbed on the stage and began to sing. Their voices wavered, harmony faltered; they exited auditorium-wards. An usher took their place to explain that this was not part of the performance but an unwelcome protest against BP’s sponsorship of the RSC. Embarrassing as it was, the intervention held a certain charm. For all their nervous off-keyness, the singers’ performance was touchingly innocent and the usher’s speech was engagingly forthright – all fitting qualities for Shakespeare’s *Twelfth Night*.⁴⁰⁰

The recording confirms that her assessment is not far from the mark, from an aesthetic perspective. However, I note that she is not the only critic to be embarrassed by environmental campaigning: the environmental dimension of *The Skriker* was described as embarrassing by one of the 1994 critics, as discussed in Chapter Seven. Not all were so luke-warm about BP or Not BP’s intervention however. Libby Purves thought one of the ‘most memorable moments of the night’ was ‘the early incursion onto the stage of two anti-BP eco-protesters, singing a rather

³⁹⁹ Andrew Shilston, BP or Not BP performer, cited in ‘We Strike Again with Green and Yellow Melancholy’, *BP or Not BP*, 26th April 2012 <bp-or-not-bp.org/news/we-strike-again-with-green-and-yellow-melancholy/>.

⁴⁰⁰ Brennan, *Shipwreck Trilogy* Review, *Observer*, 29th April 2012., repr. *Theatre Record* XXXII (09), 479-80.

appropriate logo-meets-Orsino song about the “green and yellow melancholy” and “Deepwater Despair””.⁴⁰¹ Patrick Carnegy wondered if it was an unusual beginning to the performance proper until the usher intervened.⁴⁰² For Jane Edwardes, their intervention seemed not to detract from the enjoyment of the event overall: ‘In classically liberal fashion the RSC allowed them to have their say; then up pops Emily Taafte’s drenched Viola from a tank beneath the stage.’⁴⁰³

The 29th September recording on the BP or Not BP website confirms a similar pattern of reactions – appreciative audience noises audible on the recording as the yellow-gartered lead player (representing BP) strutted around and spoke his lines undeterred by an usher who can be seen trying to persuade them to leave the stage at the edge of the picture. There were occasional booing noises but overall the audience seemed to be appreciative of the short performance. There was laughter on the lines ‘Some are born green some achieve greenness, and some purchase greenness by sponsoring cultural events’. There was also an occasional belly-laugh on lines such as ‘Oil’s not as sweet now as it was before’, and on (protagonist) BP’s dramatic fall to his knees on ‘Out damned logo’. At the end, there were laughs and claps and a decent final applause with a few whistles.⁴⁰⁴ Overall, then, BP or Not BP succeeded in delivering performances that worked as theatre, in the context of something people cared about on the evidence of strong reactions both ways (heckling as well as cheers and laughter).

Noises Off – How One Production Company Perceived the Other

Evidence as to the potential efficacy or otherwise of BP or Not BP’s interventions is also found in the stage manager’s reports relating to each performance. The 23rd April performance of BP or Not BP just before *The Tempest*, described above, was annotated by Heidi Lennard, the RSC’s Stage Manager, as ‘an invasion of the stage’ by ‘two BP protesters [...] from a small theatre company “reclaiming Shakespeare from capitalism”’.⁴⁰⁵ She briefly described their use of Shakespeare quotations, the

⁴⁰¹ Purves, *Shipwreck Trilogy* Review, *The Times*, 28th April 2012, Ibid., 478.

⁴⁰² Carnegy, *Shipwreck Trilogy* Review, *Spectator*, 5th May 2012, Ibid, 479.

⁴⁰³ Edwardes, *Shipwreck Trilogy* Review’, *Sunday Times*, 6th May 2012, Ibid, 479.

⁴⁰⁴ BP or Not BP, ‘RSC Hit by Yet another On-Stage Protest over BP Sponsorship’, *BP or Not BP*, 30th September 2012 <bp-or-not-bp.org/news/twelfthnight/>. The film is wittily entitled ‘Alas Poor RSC! How Hath BP Baffled Thee?’

⁴⁰⁵ Lennard, Stage Manager’s Show Report, RST, *The Tempest*, 23rd April 2012. The Show Reports cited in this chapter were viewed in hard copy in the Stratford upon Avon SBT Library and Archive.

Elizabethan costume of one of the performers, the filming of the performance by another member of the company from the auditorium, and ‘Rubbish’ heckling from the audience but – significantly, considering the likely point of view of the RSC itself – she did not mention not the audience’s appreciative applause audible on the recording. The 25th April intervention just before *Twelfth Night* was described, also by Lennard, as having set going some back-stage discussion, although account must also be taken of the fact that the acting company might have been reacting to potentially destabilising interruptions on a press night. One member of the acting company ‘was heard shouting at them from backstage’. Three members of the company were ‘upset’ about the RSC policy of allowing peaceful protest’. (On the point about press nights and stress, the Stage Manager Report describes one actor as having had a thoroughly bad night – he not only ‘corpse[d]’ during this performance, but also badly damaged a ligament in his right knee.) A later report by the same Stage Manager, six months on with regard to a September performance of *Twelfth Night* was different in tone, not only indicating that all involved had raised their performative game, but also suggesting some progression in the dialogue created by this event. She described the smooth reaction of the creative team: (someone removed the shot-gun as the stage invasion began), and the improved audibility of BP or Not BP. She praised the ‘very good ruff in BP colours’, as well as the performance of the RSC cast member who made a transition speech, explaining that ‘this was a peaceful protest and not part of the night’s show.’ He was loudly applauded, and the show went on.⁴⁰⁶

The impression conveyed by Lennard’s write-up is that the writer of it had become used to the stage invasions, and no longer saw them as potentially destabilising, even to the point of having the confidence to praise aspects of the performance. At this juncture, the over-riding impression given by such commentary is that the feedback loop set moving by BP or Not BP may be too weak to over-ride the much stronger feedback loop represented by the long-standing institutional status of the RSC and BP. At the risk of reading a lot into a little, this shift from uncomfortable surprise to smooth handling of the unexpected (the very

⁴⁰⁶ Lennard, *Twelfth Night* Stage Manager’s Show Report, 29th September 2012.

bread and butter of theatre companies) suggests that its targets might have brushed the protest off successfully, had it stopped in 2012.

Ecotheatrical Connectivity – Theatrical Playing and Playing Culture

BP or Not BP carried out a total of nine interventions in the context of the World Shakespeare Festival. Their ‘grand finale’ was an eye-catching ‘double, double, oil and trouble, tar sands burn and greenwash bubbles’ performance accompanied by a chanting flash-mob at the BP-sponsored exhibition at the British Museum.⁴⁰⁷

However, they did not stop here. By the end of 2016 they had executed a total of thirty-nine interventions.⁴⁰⁸ They went beyond theatre walls to other artistic venues such as art galleries and musical events, seeking to reignite and reinforce the scandal they seek to keep in the public eye, through an accumulation of small theatrical events.⁴⁰⁹ They are connected to a network of like-minded organisations (on their website they list Art Not Oil Coalition, Liberate Tate, PCS Union and Platform,⁴¹⁰ recalling the ecosystem discussion of Chapter One, in particular the power of many small feedback loops to over-ride correlations elsewhere in the system). In combination, these campaigns and other work behind the scenes appears to be having an effect. For instance, after BP or Not BP had uncovered emails ‘showing that Shell’s staff had attempted to influence the museum’s “Atmosphere” climate science exhibition’,⁴¹¹ the Science Museum reportedly ended its sponsorship deal with Shell.⁴¹² In 2016, BP announced the end of its twenty-six-year sponsorship of the Tate.⁴¹³ However, the British Museum, the Royal Shakespeare Company, the Royal Opera House and the National Portrait Gallery signed new sponsorship agreements with the firm.⁴¹⁴

⁴⁰⁷ BP or Not BP, ‘How We Reclaimed the Bard from BP’, *BP or Not BP*, 11th January 2013 <bp-or-not-bp.org/news/how-we-reclaimed-the-bard-from-bp/>.

⁴⁰⁸ The numbered list is found at <bp-or-not-bp.org/performances-and-films/>.

⁴⁰⁹ E.g. see James Pickford, ‘Chorus of fossil fuel disapproval targets BP at the Opera’, *Financial Times*, 12th June 2015.

⁴¹⁰ See BP or Not BP/About on the company website.

⁴¹¹ BP or Not BP, ‘Science Museum Drops Shell as Sponsor’, *BP or Not BP*, 12th November 2015 <bp-or-not-bp.org/2015/11/12/science-museum-drops-shell-as-sponsor/>.

⁴¹² Adam Vaughan, ‘Science Museum Ends Sponsorship Deal with Shell’, *Guardian*, 12th November 2015 <www.theguardian.com/business/2015/nov/12/science-museum-ends-sponsorship-deal-with-shell/>.

⁴¹³ Nadia Khomami, ‘BP to end Tate Sponsorship after 26 Years’, *Guardian*, 11th March 2016.

⁴¹⁴ Mark Brown, ‘Tate Britain ordered to Reveal How Much BP Paid for Sponsorship’, *Guardian*, 29th July 2016.

Chapter Five – a Story of Feedback Loops as Ecomagnifiers and Ecostabilisers

This exploration of reactions to a small number of significant natural disasters suggests that the environment as an ecotheatrical shapeshifter is regularly thematised and problematised on the stage, sometimes intentionally, and sometimes not. Although major natural disasters might slip off the front burner when other dramatic political or social happenings take hold, they tend to return, woven through longer-term threads of social and environmental meaning (these being other loops in the ecosystem discussed in the Introduction) over a much longer period. Their long shadows regularly appear in new writing or through new productions or through audience interpretations thematically connected to the deracination, injury, homelessness, lost ways of life or indeed loss of life, alongside narratives of human error and heroism. What is clear is that the environment is far from being occluded because it is visible as a shapeshifter having a strong influence on theatrical events – physically present in the context in which community performances of *Godot* took place for example, or emotionally present in the memories driving the anger expressed by BP or Not BP. Some of the productions of *Waiting for Godot* described in this chapter reinforce this point as an expression of the powerlessness felt by those affected by manmade environmental disasters. Communities in such situations are potentially aligned with the environment in ecopolitical terms, and for them, theatre is how they can draw attention to their occluded voices.

The potential for live theatrical performance to be ecoeffective in triggering a cultural change in the direction of ecoanthropocentrism is suggested by the activist work of BP or Not BP. In the context of the Deepwater Horizon disaster this chapter describes a progression from theatrical performance as a means of processing disaster to theatrical performance as a means of campaigning, and this trajectory (perhaps a runaway warming system itself) can be seen as having its origins in the adversely-aligned energy ecosystem described at the opening of the chapter. The persistence of fossil fuel in arts funding and the continuation of the six-year-old campaign are ongoing feedback loops running in opposite directions to each other, within the overall system approximately represented in Figure 3.01 (p. 121) – Ecosystems Ecotheatrically at Play. Which feedback loop will prevail – RSC/BP or BP or Not BP – is still not known, because the story continues to develop at the time

of writing. Whether BP or Not BP will succeed in their campaign against arts funding of oil is likely to depend on the combined power of this and other societal feedback loops aligning themselves in the same direction. BP or Not BP's potential ecotheatrical efficacy is however very high because they have targeted the core of British culture by means of live theatrical performances in the context of climate change – an issue increasing numbers of people care deeply about on the evidence of this and the next two chapters.

Chapter Six. Bicycles on Stage: Shapeshifters or Scenery?

The HandleBards – a cycling theatre company formed in 2013 – seeks to deliver excellent theatre with the minimum of dependence on fossil fuel generated energy, thereby demonstrating how much can be done with a very small resource footprint.⁴¹⁵ This chapter thus returns to the story of energy-low stage craft. The company goes on tour with two or three Shakespearian plays per year. On these tours its troupe of actors travels one to one-and-a-half thousand miles by bicycle and after all that still impressively has the energy to deliver sixty or seventy shows. In the company's own words this aim is expressed as follows:

We are four-strong troupes of cycling actors who carry with us all of the necessary set, props and costume to perform extremely energetic, charmingly chaotic and environmentally sustainable Shakespeare plays across the globe.⁴¹⁶

Ecoideology and Creativity in the HandleBards' Performances

The company does not engage in the political debate with respect to the environment through themes in the plays it stages. Rather, as explained by founder (concept-originator, actor, producer, tour manager and general multi-tasker) HandleBard Paul Moss, the troupe seeks to perform responsibly with their environment by means of their bicycles.⁴¹⁷ For the company, bicycles are not only a mode of transport but also (following father-of-semiotics Roland Barthes) a mode of representation and meta-language for the company's environmental beliefs,⁴¹⁸ thus an important part of the troupe's contextual theatricality. I was fortunate enough to work directly with the company on the question of how their audiences perceived their particular style of ecotheatre.⁴¹⁹ This chapter explores the findings of audience surveys we jointly

⁴¹⁵ Thanks to my supervisor for suggesting the HandleBards as a potentially interesting company in the ecotheatrical field.

⁴¹⁶ <www.handlebards.com>. The four-strong HandleBards Girls troupe was launched in 2016, hence the reference to 'troupes'.

⁴¹⁷ Bicycles feature regularly in the context of theatre companies seeking to be sustainable. Meg O'Shea describes a Canadian cycling theatre company that took a play about sustainability on tour. She examines 'multiple layers of "performing Sustainability" (as actors on stage, as cyclists, as members of a collective, as public figures "walking the talk")'. Arons and May, Ch. 11, pp. 137-146 (p. 137).

⁴¹⁸ Barthes, 'Myth Today', in *Mythologies*, ed. and trans. by Annette Lavers (Paris: Editions du Seuil, 1957; London: Vintage Books 2003, revised 2009), pp. 131-187 (p. 138).

⁴¹⁹ Ethical approval was obtained from the Department of English and Comparative Literary Studies, Warwick University, with respect to the audience survey forms shown in the Appendix to this

worked on, thus continues the Chapter Three discussion of contextual theatricality (found on the right-hand side of the Diamond Model) as an ecotheatrical shapeshifter. It also adds a further dimension to the discussion of environmental campaigning found in the second half of Chapter Five, in the sense that this company (rather like Churchill in 1994, and unlike BP or Not BP) campaigns on the oblique.

My first encounter with the HandleBards was at a performance of *Macbeth* in the ruins of Glastonbury Abbey on a chilly March 2015 evening, where I met founder HandleBard Paul Moss and first saw the troupe in action. It was clear that Moss was interested in experimenting with audience surveys as a means of finding out what the HandleBards' performances meant for spectators from an environmental perspective, and he was delighted to find someone willing to run with the idea. On the evening of this first encounter, we ran a brief audience-survey in pilot-test. I do not discuss these forms here because they were outside the main study discussed later; however, one point is worth highlighting. Asked whether the performance could be described as ecotheatre (for this question see feedback forms shown in Figures A6.01 and A6.02 in the appendix) three quarters of the small number of respondents in this pilot-test agreed that it could. This surprising result (which was replicated later) raises a number of interesting possibilities. Bringing to bear my own perspective as a spectator, the most obvious explanation for this response was the venue itself. As evening fell, the old stone walls of Glastonbury Abbey took on a slightly spooky appearance, enhanced by the participation of the resident bats; the evening chill was also in keeping with the murderous tale playing out on stage. Another possibility for modern spectators (considering the regular appearance of dysfunctional families in the 21st century plays about climate change discussed in Part One) is to interpret *Macbeth* as ecotheatrical on the basis of the upsetting of the natural order reflected in the act of murder. However, I did not think the production was designed to bring this point across. A third possibility is to see this perception as a response to the working practices of the troupe, as described in the paragraph cited above. In this performance of *Macbeth*, I noted several amusing innovations, such as a bicycle masquerading as a horse with the help of visibly-applied exaggerated clip-clopping sound effects, and a witches' cauldron steaming

chapter. Permission was obtained from the HandleBards to use data obtained from the surveys in this PhD thesis.

thanks to an energetically applied bicycle pump. Such tactics were designed to call attention to the stuff of theatre operations at melodramatic moments, thereby generating tension between the horror-story of the murder and the absurdity of the moment on stage.

Putting the Environmental Shapeshifter at the Core

This chapter returns to the questions first discussed in the context of the Arcola Theatre's production of *Waiting for Godot*, and the Young Vic's *After Miss Julie*: if the stuff of theatrical operations is radically altered, as it is in the case of the HandleBards, does it have any effect on production and reception, and does it matter, from the perspective of ecotheatrical efficacy, if this is not the case, or if no one notices? It seemed to me, as a spectator, that constraints imposed by the small size of the production team, by the fact of having to carry everything on their bicycles, and extremes prompted by the human energy system on which the company depends (most importantly the bicycles as props, scene-shifting mechanisms and living things) combined to shape the on-stage chemistry. This is evident in a paragraph of the comment I posted on the Warwick University website after seeing *Macbeth*:

When you've only got four actors and you need at least seven of you on stage, what do you do? If you are the HandleBards, you judiciously merge one or two of the smaller roles; you find an old tennis racket and dress it up in a hat, tie and jacket; and you recycle pieces of clothing not worn by the cast to stand in for them [sometimes hanging on the arms of the speaking characters]. You can also borrow members of the audience, putting hats on them, even giving them a short script [...].⁴²⁰

This combination of techniques is consistent with the idea of ecotheatre in an all-round sense discussed in Chapter Two – memory (innovations designed to surprise and amuse those who had seen the play before); recycling (textual and physical); and frugality (in the overall approach).

The importance of putting what matters to the production team at the core of theatrical feedback loops and the theatrical ecosystem more broadly, as the HandleBards do, was discussed in the context of Figures 1.05 (p. 40) and 1.13 (p.

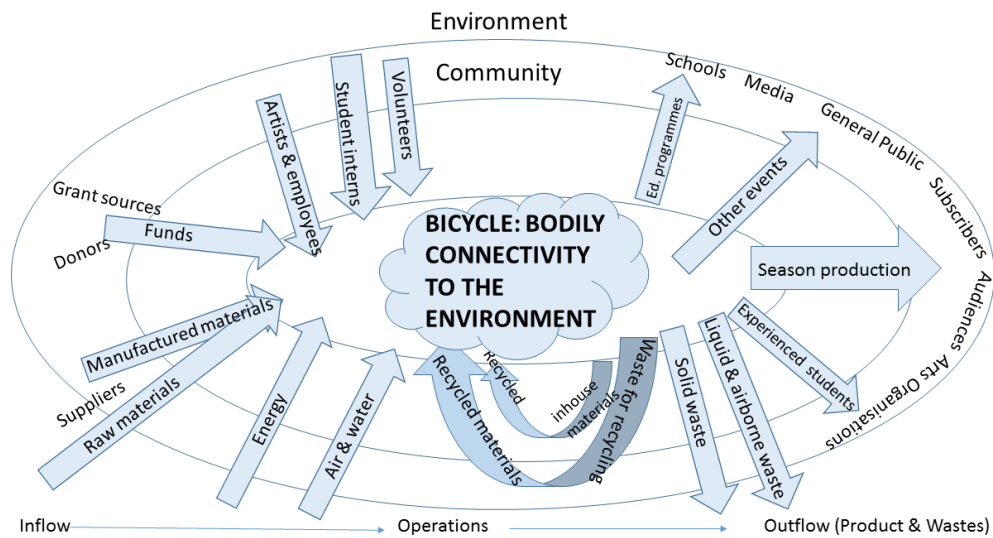
⁴²⁰ Hudson, 'The Scottish Play in Glastonbury Abbey: HandleBardian Ecotheatre', *Reviews*, 27th March 2015

<www.warwick.ac.uk/fac/arts/english/research/currentprojects/ecotheatricalreviewing/reviews/>.

64). In this chapter, too, I am interested in the idea of a fusion of theatre operations and aesthetics as potentially a particularly effective way of putting the environmental shapeshifter on stage. This continues the discussion also at work in the previous chapter, from a different perspective. In the context of *Coriolanus*, if the star actor happened to be at the core of the concept driving any given production, dearth as a shapeshifter struggled to be heard. On the other hand, when dearth and politics were jointly at the core, productions tended to be more coherent, thus more likely to put dearth on stage as a shapeshifter. In the HandleBards' ecoanthropocentric productions, the bicycle simultaneously drives operations and aesthetics, as suggested in Figure 6.01, below (see also Figure 2.01 on p. 79). Putting this in concrete terms, a fusion of operations and aesthetics in production and reception springs from the decision of the production team to cycle everywhere carrying scenery, costumes and props. This single decision shapeshifts all activities at the core of the Metabolic Chart: administration, fundraising, rehearsal, scenic design, costume, lighting and set, thereby changing the entire ecosystem of production and reception. Donella Meadows, mentioned in respect of the introductory definitions, might describe this as the creation of 'intrinsic responsibility' in the system, in the sense that the design of the Handlebards' production ecosystem enables it to look after itself and the environment at the same time.⁴²¹ This highlights an important difference between the onstage environment imposed by the theatrical production system, rather than fully embedded through the whole ecosystem. The carbon budget applied in the context of *After Miss Julie* sometimes had similar effects when production team behaviours and practices were reshaped by the constraint. However, as will be seen below, the ecoefficacy of the Handlebards' production ecosystem is much greater.

⁴²¹ Meadows, loc 3254.

Figure 6.01: Bicycles Reposition the Environment in the Theatrical Metabolic Chart



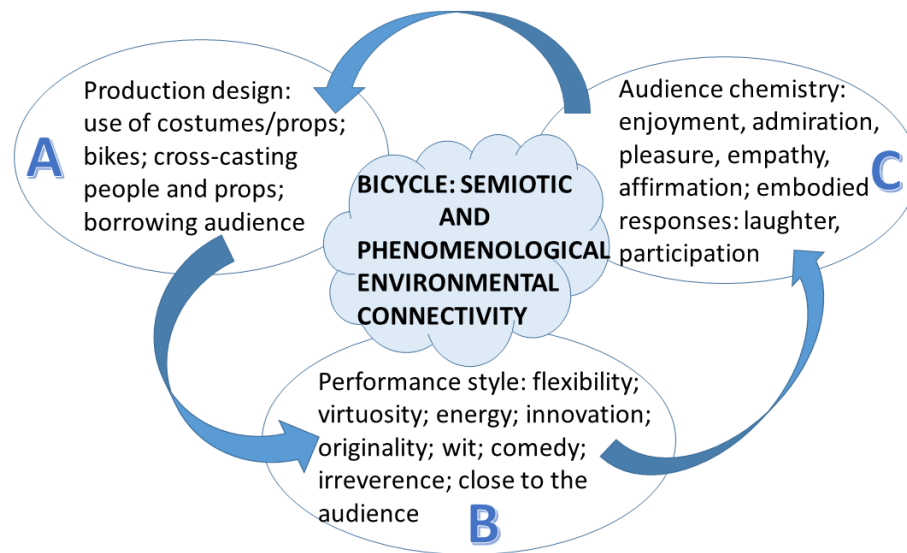
Source: Fried and May. See Figure 2.01 (p. 79), redrawn for illustrative purposes.

The Environment as the Open Secret in HandleBards' Productions

The ecotheatrical tactic employed by the HandleBards in putting the bicycle at the core of the theatrical event, is, as I see it, to create a feedback loop similar to the concepts depicted in Figure 1.05 ('Cultural Change as a Feedback Loop', p. 40), with the core idea of a palpable connection to the environment at the centre of it.

The environment as a shapeshifter can thus be seen to be driving the entire theatrical ecosystem each time the troupe performs. The potential for this to become a runaway warming system, in performative terms, is shown diagrammatically in Figure 6.02 (see also Figures 1.08 on p. 46, and 1.13 on p. 64).

Figure 6.02: The Bicycle at the Core of Productions – Ecotheatre in an All-Round Sense



The starting point for any production is the four-strong acting troupe cycling everywhere with everything they need with them. The bicycles shape the production and its reception at many levels: operationally (as innovative theatrical transport modes, scene-shifting mechanisms and props); symbolically (representing ecofriendly transport in modern society); comically (as an anachronism in Shakespearian plays, for example); and phenomenologically in the embodied responses produced in all concerned. The diagram describes the HandleBards' performance process as the circular system argued here to be potentially at work in all theatrical events. The operational consequences of the cycling regime are shown at point A on the diagram, where decisions are made about resource-allocation. Bicycles must be used in scene shifting because ropes, pulleys and steel supports cannot be carried and are almost never available in the performance venues. When there are more speaking parts than actors simultaneously on stage then scenes must be rewritten, or pieces of clothing and audience members co-opted. These operational decisions have the consequences described in stage B. The idea of recycling is on stage at any point where a resource substitution (people for people, people for things, materials for other materials) is made.

For spectators, however, the sleight of hand and comic timing skills applied to make the whole work as a performance is likely to be the main thing they want to talk about, recalling Sauter's finding that audiences tend to talk more freely about what they enjoyed. Stage B rapidly becomes Stage C, helped along by the close engagement between this troupe and its audiences. In the feedback forms analysed later in this chapter, several people commented on their enjoyment of the audience participation (both as spectators or as spectators co-opted as actors), in an interesting contrast with what happened in the 1984 National Theatre *Coriolanus* discussed in Chapter Four. Considering the importance of the boundless youthful energy of this troupe in the delivery of excellence in performance within constraints, it was perhaps inevitable that the comic potential of using whatever was to hand (anything from audience members to the food and drink in their picnics to recycled bicycle parts) would expand further. After all actors respond to encouragement, an important feedback loop in the ecosystem of the theatrical event depicted above. Stage C thus feeds back into Stage A, as the troupe of actors, responding to audience reactions and perhaps seeking to magnify them, experiments with adjustments. Returning to the discussion of theatrical events as ecosystems, the HandleBards approach to performance as described above suggests that the highest level of ecotheatrical efficacy is likely to be present in the HandleBards' theatrical events when the company succeeds in generating a self-reinforcing system of positive feedback loops in the form of enjoyment and laughter. Overall, it seemed to me, in the several performances I saw, first in March and then in the summer tour, that this was exactly why the performances worked so well. The performance ecosystem created by the ecotheatrical concept depicted in Figure 6.02 (p. 196) behaved like a climate system under the influence of a warming phase. Small ideas sprang from the initial constraints, gained a life of their own and kept on expanding. This process, which also recalls Eversmann's 'peak theatrical experience', was very effective in a theatrical sense, from my perspective as a spectator.

Do Comic Feedback Loops Occlude the Environmental Shapeshifter?

Drawing every inch of humour out of the cast, props, costumes and spectators is a hallmark of the HandleBards production style. In this respect, nothing goes to waste in their productions, but, as in ecosystems generally, overshooting is always a possibility. Thus, a balance must be maintained in which going to extremes does not

go so far as to lose credibility thereby also losing potential (eco)theatrical efficacy. In the productions at which I was a spectator, the reason why comical extremes did not derail the play lay in the very strong acting performances of all four players. The dagger Macbeth saw before him (and was convincingly terrified by) was a camping spoon dangling and spinning ridiculously on the end of a piece of fishing line. The blood spilt in the murders was no synthetic stage blood, but (eminently biodegradable and quite repulsive in this context) baked beans, but, at the same time, the horror of the murder itself was real. As described on Warwick University's *Ecotheatrical Reviewing* project, the aforementioned fishing line was used in another context: 'Banquo's ghost [was] a two-eyed piece of gauze whisking around (in between the bats) on the same fishing hook.'⁴²² Such tactics served to make fun of a Macbeth too 'rapt' (both as a character and as an actor playing his part to the best of his ability) to notice them. Not only did such humour not unbalance the play or detract from the horror of the core story, it often drew out ideas in the play more strongly. A spectator attending a different show on the summer tour was moved to think back, in their feedback form, on *Macbeth*, which they had seen earlier in the run the previous year, in similar terms: 'The brilliant thing about last year's *Macbeth* was the contrast between hilarity and horror.' I think it likely that this balance between the two extremes was a product of the specific combination of the bicycles and this troupe of actors, and the skilfully delivered climate-system-like momentum typical of the HandleBards' productions.

To drive this point home before moving on to feedback form analysis, I want to emphasize the importance of balance between extremes produced by runaway ideas, while not losing sight of the play, by highlighting a particularly mischievous comic treatment of *Hamlet* I recorded in my notes during the summer tour of 2015. Here, unexpectedly, E. L. James's erotic 2012 romance *Fifty Shades of Grey* played a prominent part in the context of one of the best-known scenes in the play. At first sight, this book had little to do with *Hamlet* as written by William Shakespeare. Also at first sight, the ecological theatrical behaviour in the form of the runaway

⁴²² Hudson, 'The Scottish Play in Glastonbury Abbey. HandleBardian Ecotheatre', Reviews, 27th March 2015
www.warwick.ac.uk/fac/arts/english/research/currentprojects/ecotheatricalreviewing/reviews/.

imagination that came up with the scene I describe below seemed to be very far removed from the idea of the environment as an issue that matters to the troupe.

The key scene was Hamlet's well-known 'To be or not to be' moment, observed by Polonius and Claudius from a hiding place behind the arras, in Act Three Scene One.⁴²³ In the first performance I saw on 26th June 2015 (in the garden of Capron House), actor Callum Brodie intermittently exchanged the part of Ophelia for that of scene-shifter, as the entire cast did when needed. He hopped on the bike and turned the pedals to work the pulleys to put the arras in place. He paused, well aware that we spectators were watching the performative actor-scene-shifter on the bike as well as the main performance. As if asking for our permission, he raised an eyebrow, and again turned the pedals. The arras moved from stage right to stage left, and poor old doddering Polonius (convincingly played by Tom Dixon notwithstanding his youthful fitness, or perhaps helped by cycling-related stiffness) was forced to keep moving reluctant creaky joints to stay hidden. Hamlet's thunder was stolen by the subversive scene-shifter; and yet, of course, it was not – Hamlet's focused absorption was clear to see, and his acting performance even more admirable for staying on course. However, this is not the end of the story.

Several weeks later, in the Royal Botanic Gardens in Edinburgh, at a performance I also attended, one of the spectators was moved to write on a feedback form: 'Not sure about the "50 Shades of Grey" antics at the same time as Hamlet's big speech.' In this version of the above, Ophelia (again temporarily playing scene shifter) hopped on the scene-shifting bike, but this time still partly in role, in that she was dutifully reading the 'book' handed to her by Polonius. The book was not the holy text it is generally assumed to be in the play,⁴²⁴ but a well-thumbed copy of *Fifty Shades of Grey*. As she read, her excitement mounted. She turned pages and pedals faster and faster, until the scenery spun off its pulley and collapsed, requiring all hands to dash chaotically onto the stage and put it back in place just in time for Hamlet to finish his great speech.⁴²⁵

⁴²³ Shakespeare, *Hamlet*, ed. by Ann Thompson and Neil Taylor (London: Arden Shakespeare, an imprint of Cengage Learning, 2006), III, I, 54-89.

⁴²⁴ See Thompson and Taylor, 2006, footnote to III, i, 43.

⁴²⁵ As I watched this scene, I noticed a short silent pause before people started laughing. My own interior pause was to wonder if the spectacularly chaotic collapse of the set was an accident. Of course, it was not, as confirmed with Paul Moss afterwards. Paul knew from this that the practical joke had worked.

There is no doubt that this scene could only have happened in this way because of the use of the bicycles as scene-shifting mechanisms, put together with the mischievous approach of the troupe, and technical excellence in comic timing. In this sense, the scene is a product of the ecological workings of the company and its theatre. I see the irreverence of this treatment of this particular scene in *Hamlet* to be a product of a general willingness to go to comical extremes prompted by the limits and pressures of the troupe's ecological *modus operandi*. This is quite different to the picture in the theatrical metabolic chart (Figure 2.01, p. 79), to clean energy posters in the lobby of the Arcola theatre; and to the public-domain discussion of energy-low stage craft by the Young Vic without reference to performance aesthetics in the context of *After Miss Julie* (which, however, was deceptive as seen earlier). The question raised by what had happened here was whether such comic extremes also had the effect of masking the environment as a shapeshifter in the production from the perspective of spectators. Putting this in terms of the theatrical ecosystem, if the comic feedback loop dominates, is the environment in the HandleBards' productions positioned in the same way as the seemingly separate (thus potentially occluded) environment in the Arcola's clean energy posters and in the Young Vic's energy-low stage craft? The HandleBards' case study is thus likely to throw an important light on the occlusion discussion of Chapter Two.

Designing Feedback Forms to Tease Out the Environmental Shapeshifter

The question of interest to the company was, similarly, whether the environmental message, which matters to the company very much, was perceptible to spectators notwithstanding its embeddedness in the overall production ecosystem. We worked together experimentally to design a questionnaire that might tease this out, at the same time as collecting other data the HandleBards needed for other purposes. In the analysis in this chapter, I do not focus on data collected for other purposes, such as demographics, or whether spectators liked the venue, asked with an eye on future programming.⁴²⁶ The form was used in two ways. At first, respondents gave their

⁴²⁶ I note the possibility of segmenting the data by age bracket, gender, location, weather and so on, for a more detailed analysis. I did not attempt this because I wanted to focus on developing the main idea, but also because of the relatively limited amount of time available for analysis, and uncertainties surrounding the number of forms thus the extent to which data could be segmented. I also observed

feedback on hard copy forms on the spot. As the practical challenges of implementation became evident, Paul Moss used the questions to create an electronic version of the form which was sent by email to those who agreed to be contacted.⁴²⁷

From the perspective of this thesis there were three key questions in the form. One simply asked whether the spectator had enjoyed the performance. A further question asked whether the performance had changed the way the respondent saw the play (and the respondent could answer yes, no, or not applicable because they had not seen the play before). The opportunity was provided to comment. These two questions were deliberately constructed not to contain any hints about the environment – should any respondent mention the environment in the context of these questions, this would be the strongest possible evidence of the connection discussed above. The third key question was whether the respondent saw the performance as ecotheatre, and statements with tick-boxes below the question were provided so that respondents could say why. The tick-box questions (where spectators could Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, Strongly Disagree) were as follows: Environmental and/or ecological meanings are always visible in this play no matter who produces it; I like the working practices of the HandleBards because they help me see more clearly how the themes in this play are connected to the natural environment; I like the working practices of the HandleBards because they make the play more exciting and enjoyable to watch; I like the working practices of the HandleBards because they result in a very low carbon footprint for the production; the overall experience of today's show is making me feel closer to the environment. This list of tick-box questions was strategically placed on the form just below the question about ecotheatre. It was designed with the intention of teasing out the relative importance of the content of the play (the first question) and the fusion of aesthetics and operations (the middle three questions). The final question (which someone like

that spectators often filled in single forms in small groups, mingling age brackets and gender on the same form.

⁴²⁷ For ethical reasons (restricted access to respondent identities) I was unable to correct for the possibility that some respondents could have responded twice, once in hard copy and again electronically. There may be an offset to potential duplication of views because what respondents typically do is likely to vary, given the number of possibilities open to them. They could, for example, add the same or similar text to both, add text only once, take the opportunity to amplify single-word hard copy feedback in longer sentences electronically, or express changed views after a lapse of time.

Churchill might describe as ‘clunky’) was included to elicit evidence for or against the idea that the HandleBards’ ecotheatrical approach might have helped spectators connect emotionally with the environment through the experience of the performance. It did not necessarily always do this as will be seen, but the insights it produced were all the more valuable because of the sometimes-subversive responses this question provoked.

Designing Ecological Analytics for Textual Commentary

As the design of the feedback form described above and shown in the Appendix to Chapter Six suggests,⁴²⁸ Moss and I were both interested in eliciting informative textual commentary as efficiently as possible. The structure of feedback forms and the framing of questions within them is however not the only consideration in such research. How responses in feedback forms are interpreted must also be appropriately structured to tease out meaning without, however, adding meaning. When the research objective is to gain an overall impression of how a group of spectators responded to a performance, the methodology known as post-coding or encoding is a useful tool. This Digital Humanities approach allows textual content to be analysed and compared with other related texts on a systematic basis. A good example of its use is found in Tulloch’s analysis of audience surveys implemented in the context of several productions of Chekhov’s plays at the Theatre Royal Bath.⁴²⁹ How passages of text are encoded or postcoded (the words are used interchangeably) is driven by an ontology, defined as a set of concepts and categories designed to highlight the most important characteristics of relevant texts. These can range widely in terms of their complexity. In Tulloch’s work, for example, analytical categories used as ‘conventional binaries applied to Chekhov’ included production intentions and responses to them in the context of *The Cherry Orchard*.⁴³⁰ If the same system is applied across many bodies of text, this approach can also be used to analyse the relationships between them. When this is likely to be the research goal, it is best if the ontology is already in the public domain, for reasons of consistency. However, if the analysis is about a small body of text, as in the work of Sauter and Tulloch, a bespoke ontology can be designed around specific research questions.

⁴²⁸ See Figures A6.01 and A6.02.

⁴²⁹ Tulloch, 2005, p. 204-5.

⁴³⁰ Ibid., p. 98-9.

Analysis based on word-counts to gain an idea of the proportion of responses accounted for by each category can be used to indicate the most important reasons for coming to a production (as in Tulloch's analysis), or the dominant quality of the response to a production on tour, as in this case study.

For textual analysis to be effective, the bespoke ontology that drives it must be shaped by the ideas shaping the survey questions. This is particularly the case in the context of the circularities running through this thesis and, of course, running through ecotheatre as experienced in the course of this chapter. Paraphrasing Corbin and Strauss, cited earlier in the context of Grounded Theory, the structure likely to be embedded in feedback form data in relation to the presence of the HandleBards' concept at work in the ecotheatrical performances of the HandleBards is observed through readings of textual feedback form data collected during the research process and not chosen (other than in the very general sense of expecting circularity) prior to beginning the research project. Thus, as in Grounded Theory, research analysis and data are interrelated. The data collection of course could not be easily amended because the feedback forms in this case were not just being used for this thesis project. (However, it is true to say that the *Macbeth* pilot-test helped to shape the questions in the forms designed for the summer 2015 tour.) After initial data were collected, I analysed them, and the concepts derived from the analysis formed the basis for the subsequent data interpretation, so that, as more feedback forms arrived, I returned to earlier forms to re-read the content considering discoveries made in the later ones, to make sure I had not missed relevant evidence. Data collection and analysis continued in an ongoing cycle throughout the HandleBards research project.⁴³¹ This is not an application of Grounded Theory in the strict sense of the term as defined by Strauss and Corbin, but both are circular.

In the 2015 HandleBards' cohort of feed-back forms, replies were generally short and simple, which meant that much of the encoding was about counting words and assigning them to categories, in the circular process described above.

⁴³¹ Corbin and Strauss, 2015, p. 7.

Table 6.01: HandleBards' Summer Tour 2015 – Textual Encoding Categories

Response Categories	Examples of Words or Ideas in Feedback Form Text
Affirmation.	Brilliant. Excellent. Great. Superb. Encore. Amazing.
Pleasure and enjoyment.	Loved, enjoyed the performance. Found it joyful, pleasurable to watch, delightful. It was fun, funny, comical. Embodied response - laughed my head off; was bowled over, stunned, exhilarated.
Admiration.	Of the production overall. Of the acting. Of the professionalism of the troupe. Of the quality of the acting. Of the troupe's talented performance.
References to the HandleBards' Concept, or aspects thereof.	The concept overall. Working within limits. Direct references to (words containing) 'eco'. Use of costumes / props. Use of bikes. Cross-casting / multiple roles. Use of spectators / audience participation. Flexibility / virtuosity. Energy. Innovation / originality. Cleverness.
Accessibility of Shakespeare.	More accessible / easier to understand / accessible to all ages.
Other	Venue Setting Noises off
Objections	Hard to hear. The elements (cold, rain, insects). Audience participation - in appropriate. Eco-questions on feedback forms.

The main categories that fell out of this process included a term I decided to call 'affirmation' which denoted verbal applause expressed in words such as 'awesome', 'brilliant', 'fabulous', 'fantastic', 'great', 'incredible' and so on. Enough people used words such as 'loved', 'enjoyed', 'enjoyed' and 'delightful' to require a category I called 'Pleasure and Enjoyment'. Words counted under the heading of 'fun' (which

I eventually grouped with pleasure and enjoyment) included comments relating to hilarity, comedy, laughter and so on. Another common theme was admiration of the talent at work in the performance. In the category I called admiration, people described the acting, and the creativity and ingenuity of the production in glowing terms. I also recorded an interesting point in a small number of forms: resistance to environmental questions in feedback form text, which seemed to be prompted by the final tick-box statement on the form.

In Table 6.01, the area I describe as the HandleBards' 'concept' is particularly important. This area of the analysis is an attempt to understand more about the theatrical feedback loops driving connections between the enjoyment of the performances and the perception of them as ecotheatre. The 'concept' as an idea embedded in the combined responses in the cohort of forms dropped out of my reading of the feedback forms, but it is also shaped by the ecotheatrical feedback loop depicted in Figure 1.13 (p. 64), developed above in Figure 6.02 (p. 196).⁴³² Translating both for the HandleBards, the concept (bicycles and associated constraints) shapes production content and style (A), content and style shape the chemistry of theatrical playing (B), and the spectators responding to feedback form questions describe their reactions to production chemistry (C). Sometimes they do so in general terms; and sometimes they refer to specific aspects of staging or performance, in a fusion of operations and aesthetics: bikes and energy, casting and flexibility, working within limits and cleverness or ingenuity. Coming full circle, I decided that it was reasonable, in this circular analysis of a circular process in the HandleBards' theatrical events, to see seemingly general terms such as 'cleverness' and 'ingenuity' written on feedback forms in the context of the seemingly widespread acceptance of the idea of ecotheatre, as connected to the (ecotheatrical) bicycles (via the HandleBards' *modus operandi*) even when they were not directly mentioned.

⁴³² Although the four definitions of terminology in the Introduction – ecosystem, shapeshifter, ecoanthropocentric and ecoeffective – were devised for theatre rather than qualitative research, I note that they could be readily applied here. The analysis itself is an ecosystem, the spectators in aggregate shapeshifters of the research content. If the mindset driving the work is sufficiently ecoanthropocentric, the research will be ecoeffective – properly drawing out and highlighting the environmental shapeshifter embedded in the theatrical event as perceived by the spectators.

How Did Respondents React to the Performances They Saw?

In this section of the chapter, I begin by considering the data produced by the box-ticking responses to the three key questions, taking hard copy and electronic forms in aggregate for each play. The message in the responses relating to *A Midsummer Night's Dream*, was how much people had enjoyed the humorous approach. The hidden agenda in the first general question (whether the respondents enjoyed the performance they had seen, or whether they rated it highly)⁴³³ was to assess a joint possibility: in the context of their enjoyment of the production, whether there was any tendency to comment on environmental matters in the text. The result could not have been clearer. There were no direct comments on the environment. Considering the point that the bicycles are the environmental shapeshifter on stage in several senses, it is noteworthy that they were also hardly ever mentioned (I counted three instances of direction mentions.) For *Hamlet*, similarly, respondents unanimously enjoyed the show, and here, too, the comic nature of the performance was repeatedly referred to whereas the environment was never directly mentioned, and the bicycles were mentioned four times. A further measure of enjoyment was reflected in how many people took the trouble to add text in relation to this first question. For *A Midsummer Night's Dream*, again taking hard copy and electronic forms in aggregate, fifty percent did so; for *Hamlet* performed out of doors, sixty-two percent did so. In the single instance of *Hamlet* performed indoors at the Museum of the Order of St. John's, twenty-one percent did so.

The question about changed perceptions of the play was, similarly, to see whether any of the respondents would associate this with the obvious innovation: the environmental ethos driving the HandleBards' approach. For *A Midsummer Night's Dream*, the three hundred and twenty-eight forms containing answers from respondents who had seen the play before were evenly divided on whether the performance had changed their view of the play, or not. (Only fifty-eight individuals deemed the question non-applicable on the grounds of not having seen the play before.) For *Hamlet*, the one hundred and forty-three forms containing responses

⁴³³ In an example of small challenges that can arise in the context of collaborative working, the hard copy form asked whether respondents had enjoyed the show, and the electronic form asked them to rate the quality of the show, with tick-boxes – Very Good, Good, Average, Poor, Very poor. The questions are not identical but it seemed reasonable to see a high rating for the show's quality as coinciding with a high level of enjoyment.

from spectators who knew the play (thirty-five indicated they had not seen it), sixty-four percent said their view of the play had changed, thirty-one said it had not, and six percent were not sure. Some people provided brief comments as to why their perceptions had changed. The most frequently-cited reasons were for both plays were: that it was much more comical than they had expected; that it was more accessible than Shakespeare usually is; and that they had understood the play better. No respondent mentioned bicycles, and no respondent mentioned the environment or ecotheatre notwithstanding the prompt in the next question on the form, visible to those filling in hard copy forms, and possibly remembered by those who had seen the form before and were responding electronically.

Did Spectators see the Productions as Ecotheatre?

Moving on to the next important question – whether respondents saw the performance as ecotheatre, over eighty percent of respondents “Strongly agreed” or “somewhat agreed” that the performance they saw could be described as ecotheatre. Agreement was weakest for *Hamlet* performed indoors. Two of the respondents who responded electronically to the ecotheatre questions referred directly to the different impact on them of the indoor performance. One of them, who neither agreed nor disagreed that the performance could be described as ecotheatre said:

I think I might have felt differently (and more definite), had I seen the production at an outdoor theatre. But the environment was less pronounced as a theme indoors. However, the use and reuse of props/actors and bicycling does lend itself to an eco-theatrical performance.

Here, I note with interest the direct mention of the bicycles as the main reason why this spectator might have seen the indoor production as ecotheatrical. The second somewhat disagreed, citing the use of public transport to this London-based venue as ‘eco-friendly’, and the absence of a garden setting as running against the idea of the performance being ecotheatrical.

On the ecotheatrical section of the form, there was very little difference between forms collected manually on the spot or electronically after the event with respect to the headline answer. The most striking change (because of the high initial level of agreement) was a fall from ninety-five percent of manual feedback form respondents who strongly or somewhat agreed that *Hamlet* performed outdoors

could be described as ecotheatre, to eighty-eight percent of respondents on electronic forms. Such nuances are less important than the headline finding. This is that the seventy-seven percent of respondents who thought the HandleBards' *Macbeth* could be described as ecotheatre was not an anomaly. Similar numbers of those who submitted feedback, in aggregate, with respect to a larger sample of thirty-eight performances of *A Midsummer Night's Dream* and twenty-two Performances of *Hamlet* agreed that the production they had seen could be described as ecotheatre.

As discussed in Part One of this thesis, the term ecotheatre can have many meanings. It is unlikely all the respondents who ticked the box meant the same thing by it, hence the tick-boxes on the forms described above. The most frequently-selected reason was that the working practices of the theatre company made the play more exciting and enjoyable to watch. (Over seventy percent of respondents who answered the question selected this reason – see Table A6.02 in the Appendix). Relatively few people selected answers suggesting that the HandleBards' working practices drew out environmental meanings in either text, and a very small minority (five to ten percent) thought ecological meanings could be found in the plays no matter who interpreted them. (I note that this contradicts Cless's ecological interpretation of *A Midsummer Night's Dream*, cited on p. 47.) Respondents who thought that the performance made them feel closer to the environment were also in the minority, and none of those who saw an indoor performance of *Hamlet* felt that the performance was making them feel closer to the environment, either at the time or after the event.⁴³⁴ Finally, about half of the cohort of respondents thought that the performance could be described as ecotheatre because of the low carbon footprint of the troupe. The likely explanation for this relatively low number is the impossibility for many spectators of choosing any mode of transport other than the car.⁴³⁵ Respondents who answered the question about transport electronically had journeyed to the performance by car sixty-five percent of the time (within which seven percent had shared the car); twenty-three arrived by public transport; and just six percent had arrived by bicycle.

⁴³⁴ Indoors, fewer respondents ticked the 'exciting to watch' box. It thus seems reasonable to suggest that performing out of doors plays an important part in production chemistry and reception.

⁴³⁵ As I drove up the long hill to the Petersfield Sustainability Centre, I thought with sympathy of the HandleBards towing their equipment. Cycling or walking to this performance would be a challenging round trip for all but the very fit.

Overall, the message in the data delivered contained in tick-box areas of these forms is consistent with the Theatrical Events approach discussed in Chapter Three. For theatrical events to succeed as ecotheatre, they must first and foremost be enjoyable as theatre. Returning to questions raised in the context of the earlier discussion of the Arcola *Godot* and the Young Vic's *After Miss Julie*, this section of HandleBards audience survey data can be read to suggest that an overt thematization or problematisation of the environment on stage is not required for a performance to be perceived as ecotheatre thus to be potentially ecotheatrical in its effect. Putting the two statements in this paragraph together, the data suggest that, like the environment in real life, the environment as a shapeshifter can be an unstated but nevertheless active feedback loop in the theatrical event when it is an integral part of the stuff of theatrical operations. Applying this idea to the Arcola *Godot* and *After Miss Julie*, the implication so far is that the nature/culture divide I seemed to detect in my own thinking in the context of *Godot*, and in the absence of public references in reviews or discussions of *After Miss Julie*, need not be an obstacle to the active presence of the environmental shapeshifter on stage, from the perspective of the audience.

The Feedback Form as a Possible Shapeshifter of Respondents' Views

In this section about the feedback form text collected on the HandleBards' summer tour, the two cohorts of forms – manual and electronic – are discussed separately. This is because respondents seemed to behave differently in the way they responded to each format. As can be seen by the different structure of the two forms (see Figure A6.01 and A6.02) the HandleBards' electronic form resulted in respondents scrolling through questions a few at a time, and provided respondents with more space to add text, requiring a decision – whether to write something or to scroll through without writing anything. I thought this made it likely respondents would produce more text than when responding to a hard copy form, and this proved to be the case. I felt there was also a risk that the electronic forms might guide respondents in the direction of making specifically ecocritical comments where they might not have done so otherwise, in a less structured environment. This also turned out to be the case, however, how this was done was enlightening, and inconsistent with the idea of being led.

Feedback Text Added to Hard Copy Forms

Implementing a textual analysis with respect to the first feedback form question along the lines defined above in Table 6.01, I processed one hundred and sixty-three *A Midsummer Night's Dream* hard copy feedback forms.⁴³⁶ Seventy-two people (accounting for forty-four percent of the forms) provided text in relation to reasons why they liked the performance style of the HandleBards. It should be noted that this high number is itself a positive indication of audience engagement with the production. Within the seventy-two responses, forty-three forms contained material that fell into the 'affirmation' category, using words such as 'amazing', 'brilliant', or 'awesome'. (I note that the categories will sum to a higher number than seventy-two because some respondents respond in several ways.) Forty-one respondents referred to an aspect of the HandleBards' ecotheatrical concept, with several referring to the originality of the approach, and others mentioning physical aspects of the production, for example: 'I like bikes';⁴³⁷ 'I like the clever physical sequences and use of the audience. I like the use of materials for costumes and props and the eco policy'; 'Very funny; love the minimalist style'; and 'The bells!'⁴³⁸ Excellent props and audience members.' Fifteen expressed their admiration of the production or the actors, referring to their 'talent', or to the 'amazing acting'. Twelve wrote in terms of pleasure and enjoyment ('Just so much fun! Joyous.'). Six people suggested that the HandleBards' approach made Shakespeare more accessible – by, for example, making it 'come alive', or making it 'interesting', 'easy to follow the story' and 'family friendly'. There was just one objection, about an over-long interval. Although I have cited comments containing the overt references to the word 'eco', or to bicycles or cycling equipment, they were in the minority.

⁴³⁶ This is lower than the number received because of an operational problem in relation to fifty-one forms collected in Crook Hall, Durham, as one batch. There were in fact two performances of *A Midsummer Night's Dream* and one performance of *Hamlet*, with no way of separating the forms after the fact. I took the decision that this was too much potential cross-contamination. Moreover, I felt the large number of remaining forms would provide enough information for the exercise. See the Appendix to Chapter Six for further detail.

⁴³⁷ This and the reference to bells cited below are the only direct reference to bicycles in this large number of forms.

⁴³⁸ Each actor carried a bicycle bell on his thumb, and rang it once to announce a scene (which often also meant a character) change. As a spectator, I found this device funny, and I could see others did too. It also played an important function within the production ecosystem, given the potential for confusion when players change their roles often, as they do in these frugal productions.

In the case of *Hamlet*, I processed forty-four forms, of which twenty-two (fifty percent) contained text. All but one of these forms contained terms I classified as ‘affirmation’, with comments such as ‘Brilliant!’, ‘Excellent!’ Fourteen people also wrote in terms of pleasure and enjoyment, such as ‘Loved the set’ and ‘Easy watching’. Ten were encoded as referring to the HandleBards’ concept, as in ‘Loved the concept, and the acting’; ‘Changes of character/costumes. Energy. Use of bikes for scenery.’ (Here, too, I note that only one person referred directly to bicycles and none used the ‘eco’ prefix in hard copy forms). Five referred to Shakespeare’s enhanced accessibility. Finally, there was just one objection (‘Not sure about the *Fifty Shades of Grey* antics [...]').

Asked whether the performance had changed their view of the play, respondents were far less interested in providing text on hard copy forms even though most people seemed to be already familiar with the play. Only eight percent of the *A Midsummer Night’s Dream* forms and eleven percent of the *Hamlet* forms with text (just five forms) provided any commentary here. There seemed to be two interests at work in the forms with responses in this area: pleasure and enjoyment (including humour or comedy) for both plays; and (for *A Midsummer Night’s Dream* only) the greater accessibility of the play, thus, of Shakespearian theatre.

The hard copy feedback forms provided an opportunity to comment on anything the form had not asked about. Unexpected material here provided an interesting nuance, not about the performances, but about direct environmental questions on feedback forms. Twenty-eight people chose to amplify what they had already said about *A Midsummer Night’s Dream*, writing in terms of their enjoyment of an excellent production. Five of these respondents chose to comment on the tick-box question as to whether the performance made people feel closer to the environment.⁴³⁹ They commented as follows: ‘Just because it is outside and minimalist does not make it eco’; ‘No, very close anyway’; and ‘Strolling players. For environment, read history’; ‘(Ecotheatre) What’s the definition? (We are geographers). ECOLOGY = Achia (?) & magical plants. Grass, gardens, drizzle’; ‘(Not closer to the environment because) we are on a blanket’. Whereas the last two comments of the five are playful, engaging with the people behind the form, the first

⁴³⁹ I expected question to be seen by some, but not all, respondents as jarring.

three questions all contain a strong element of resistance to the question, suggesting, indeed, that it was unnecessary.

Feedback Form Text Submitted Electronically

Moving on to electronic feedback forms, I processed two hundred and forty *A Midsummer Night's Dream* feedback forms of which one hundred and forty-six (sixty-one percent) contained text; and one hundred and sixteen *Hamlet* feedback forms of which seventy-three (sixty-three percent) contained text. The number of respondents who described the performance they had seen in terms of the encoding categories described in Table 6.01 for *A Midsummer Night's Dream* and *Hamlet* respectively were as follows: affirmation: ninety-one (sixty-two percent of one hundred and forty six forms with text) and forty-four people (sixty percent of seventy-three forms with text); pleasure and enjoyment: eighty-six (fifty five percent); and fifty-three (seventy-three percent); admiration thirty-six (twenty-five percent) and eleven (fifteen percent); concept: sixty-six (forty-five percent) and forty (fifty-five percent); accessibility of Shakespeare: thirty-one (twenty-one percent) and sixteen (twenty-two percent); objections: thirteen (nine percent) and seven (ten percent). The comments made were similar to those cited on hard copy forms and comments tended to be fuller, so, rather than isolating short sentences I will focus on a few striking examples that combine several categories of response. One respondent said of *A Midsummer Night's Dream*:

[A friend] had organized for me to be chosen to join the cast on stage in the final scene and this was incredibly memorable and such a joy! The actors were so professional and made the play really come alive. The physical/slapstick elements of the show were brilliant, and the costumes were very clever (especially when they were used in place of other characters on stage – hanging the dresses etc. on sticks was incredibly clever!) and the whole experience was unforgettable. I will be sure to follow the HandleBards on social media and hopefully see one of their shows again!

This description captures the HandleBards theatrical ecosystem, and describes the experience in terms of affirmation, pleasure, and admiration. The play was accessible, as reflected in the comment that it 'came alive'. This spectator also describes a fusion of operations and aesthetics, in the factual elements he or she picks up, put together with a strong emotional response ('memorable', 'a joy',

‘unforgettable’). The environment (and the bicycles) are not directly mentioned in this comment, even though it cannot be denied (because of their palpable presence on stage) that they were shapeshifters in the mix. Moreover, this spectator, following HandleBards on social media, hints at ongoing connections to ecotheatrical feedback loops after the event. When the responses of this spectator are ecoanthropocentrically interpreted, the performance can be described as having been ecoeffective, even though neither the environment nor the bicycles are mentioned.

Another person wrote:

The show was brilliant!!! I loved the premise and the eco-friendly ideology behind the HandleBards, and the incredible creativity they demonstrated to work within those parameters. I loved the friendly, casual picnic and cocktails [...]. But of course, the real highlight was the HandleBards themselves – their adaptation was silly, lively, accessible and unpretentious – exactly what Shakespeare comedy should be!

Once again, this person comments in terms of categories labelled in this analysis as affirmation (‘brilliant’), pleasure and enjoyment (‘loved’), admiration (of the HandleBards themselves), the concept (with a direct mention of constraints and creativity in this case), and the accessibility of Shakespearian theatre (‘accessible’). He or she also validates the HandleBards approach thus also seems to be validating the presence of the environment as a shapeshifter on the Shakespearian stage.

In the cohort of electronic *A Midsummer Night’s Dream* forms, in the context of the first general question about the enjoyment of the performance, just four people out of the one hundred and forty-six who added text directly used the ‘eco’ prefix, and just one respondent mentioned the bicycles directly: ‘use of bikes, brilliant’. The thirteen people who made objections talked mostly about the elements (the wind blew words away, it was chilly). Three people were not sure about the audience participation, but this was more than offset by the nineteen people who wrote directly about their enjoyment of it.

Text about *Hamlet* for the first general question was broadly in line with the above. People commented on finding the play easier to understand – for example one commentator had more sympathy than usual for Hamlet, who came across as both ‘human’ and ‘humane’ in this production. One person thought the

HandleBards' Hamlet was 'better than Benedict Cumberbatch'.⁴⁴⁰ Other comments were (variously) that meaning was drawn out very effectively, and that new light was thrown on the play, and that it was true to Shakespeare. To take just two examples in which several of the categories listed in Table 6.01 are combined:

Great ingenuity, comic timing and delivery. Loved the edgy and bonkers Hamlet under his cloud (who can he trust?). Also loved the inebriated Gertrude – made perfect sense.⁴⁴¹ Best of all was the gravediggers' scene and the ending. How do you solve the tragedy and dead body pile up problem with a cast of four? Easy! Use the audience and head to the bar.⁴⁴² Loved it! I came for the Bard, my partner and friend, and for the bikes!

Superb. I loved the interpretations of the dipso Gertrude, the long-suffering Claudius – best ever Polonius advice talk – and Rosencrantz (or Guildenstern) as a sock puppet was just inspired.

The first commentator admired the skills of the troupe, enjoyed excellent acting observed in the context of a non-traditional approach to the roles, thoroughly appreciated the audience participation, and seems to connect emotionally to Shakespeare and bicycles. The second comment of the two combines a comment on excellent acting with commentary on an innovation arising from the constraints embedded in the concept. Having seen this as a spectator I can confirm that Claudius had to be patient (could be seen to struggle to maintain calm) because this wonderful version of Polonius several times seemed to finish what he was saying; he started moving towards the exit, and then he turned around and resumed the speech. Each time, we spectators, as a body, chuckled a bit louder. The sock-puppet seemed to be made of recycled cycling socks, plastic water bottles and other materials, and (in another innovation) ventriloquism was used to solve the problem of how to use one actor to speak as two protagonists on the stage at the same time.

Hamlet is not usually seen as a comedy, and five people (out of the seventy-three who submitted text) objected in terms of seeing the comedy as overdone. One

⁴⁴⁰ The Barbican *Hamlet*, directed by Lindsey Turner and starring Cumberbatch ran from 5th August 2015 to 31 October 2015, thereby overlapping with the HandleBards' 24th June to 12th September 2015 tour of *Hamlet* <<http://hamlet.barbican.org.uk>>.

⁴⁴¹ Another respondent thought Gertrude's thirst for wine explained why she eventually drinks from the poisoned cup in the plot.

⁴⁴² The four actors successively replaced each casualty with a spectator, and by the end the four were sitting together in the back row of the audience.

person ‘thought perhaps the pathos could have been slightly more highlighted’ (and this respondent, cited earlier, thought the balance had been better in *Macbeth*). Another thought that tragedy was too often ‘undercut by comic relief’. Someone else objected to the irreverent treatment of the Hamlet’s key speech. However, such objections were overwhelmed, in terms of numbers, by those who enjoyed the comic take on the play. Some of these respondents, indeed, saw the irreverence inherent in some of the visual gags as appropriate:

Just loved it. Energy and creativity. Felt like Elizabethan theatre through and through. How can the audience stay engaged? Maybe by having a morose, heavy-browed Hamlet have a permanent grey cloud hung in front of his face by an umbrella tucked into his trousers.⁴⁴³

The small number of objections to extreme moments suggests that the HandleBards took the balance between comedy and tragedy as far as optimal – in short, they reached greatest possible comic extreme without losing the balance with tragedy. In ecosystemic terms they exploited an emotional runaway warming system on stage without going so far as to unbalance the broader ecosystem of the performance or the play.

Asked whether the performance had changed their view of the play, respondents through electronic forms were much more engaged in providing commentary than those who responded through hard copy forms. For *A Midsummer Night’s Dream* and *Hamlet* respectively seventy-seven people (thirty-six percent) and fifty-two people (forty-six percent) provided commentary. The interesting difference with hard copy forms is how many more people wanted to talk about *Hamlet*. This is likely to reflect the unusual (and successful) comic presentation of the play. For both plays, the main things people talked about were pleasure and enjoyment, the accessibility of the play, and a smaller but still significant number of people (fifteen) mentioned an aspect of the concept discussed in the context of Table

⁴⁴³ In later performances, Hamlet wore the cloud suspended over his head by an umbrella handle in the first scene only, probably because it constrained movement and possibly because it was uncomfortable. One scene was enough to make the point. The line ‘How is it the clouds still hang on you?’ (*Hamlet*, I, ii, 66) elicited a ripple of chuckles from the audience in several of the performances I saw.

6.01. However, I note that not one person directly mentioned the ‘eco’ prefix or the bicycles in the context of a changed view of the play.

The Open Secret of the Environment as a Shapeshifter: Don’t Spoil It!

For electronic forms in this summer tour, people had two further opportunities to submit text, first in the context of the question ‘Do you think the performance could be described as ecotheatre?’, and secondly after filling in the tick-boxes, they could, if they chose, provide further granularity. Relatively few people submitted text – unsurprisingly, considering the amount already submitted earlier on in the forms. Taking the ecotheatre question first, forty-four respondents provided text for *A Midsummer Night’s Dream*, and twenty-four respondents for *Hamlet*. The final opportunity to comment elicited just thirty-six pieces of text for *A Midsummer Night’s Dream* and eighteen for *Hamlet*. Although the number of submissions was small, it provided some interesting insights, expanding on a point already noticed in hard copy forms.

In my analysis of text submitted in the context of the ecotheatre question, I changed my encoding approach to address the research question behind this feedback form question, which was about whether spectators appreciate the fusion of operations and aesthetics at work in the HandleBards productions. I therefore categorized responses in terms of three buckets: comments relating to performance aesthetics, comments couched as factual statements, and instances of resistance to the question. In both productions, the numbers of people commenting in aesthetic terms (e.g. ‘good use of props’, ‘very clever props and staging’) or in the form of factual statements (e.g. ‘props and costumes made of recycled materials’) tended to be evenly balanced. A spectator of *A Midsummer Night’s Dream* provided a comprehensive summary, illustrating the point with a comment that balances both aspects – the effect on him or her as a spectator, with reference to specific (physical) aspects of the production such as props and set:

I loved the use of the bicycle to change the scenery and the bells to signal character changes. The set and costumes were minimalistic but this added humour and excitement to the whole production. The way the actors transported the set etc. to different venues is economical and this was certainly appreciated by all the people I went to see the play with.

In a similar vein, but with less of a balance towards the physical and more towards aesthetics, a *Hamlet* spectator said:

I loved the ethos of the tour – and its ramshackle pedal-powered style is the main reason I went to see it and enjoyed it so much.

Many of the comments, with respect to both productions, expressed affirmation and admiration, using words such as ‘brilliant’, ‘eco-awesomeness’, ‘amazing’, and one *Hamlet* spectator humorously said ‘I hope your knees are OK’. From the perspective of ecotheatrical efficacy, it is hard to know whether these feelings are taken outside the theatre by the spectators. However, one of the *A Midsummer Night’s Dream* respondents said the following, thereby hinting at this as a possibility for other spectators:

This is such a fantastic concept – a touring theatre company who can put on a performance with no more than what they carry themselves. It really made me think about the impact that most large productions put on the environment, which aren’t really at all necessary! We don’t need pyrotechnics and trucks full of props – in fact the minimalism made it more accessible and friendly; the confines added to the creative whimsy.

In the responses relating to both productions the term ‘eco’ was more frequently used than it had been in the context of other questions. The implication of this finding is that spectators tend not to refer directly to the environmental shapeshifter on stage unless they are prompted to do so, as they were in this section of the form. Nevertheless, I do not think this implies that the forms led the spectator to see the environment where they had not before. There are two pieces of evidence in support of this view. The first is discussed above, in each of the four sections in which textual feedback is discussed. This is the point that the bicycles are hardly ever mentioned in response to general questions on the survey – they appear almost as infrequently as the environment does, as a direct mention. A literal interpretation of this fact might describe the bicycles as occluded on the HandleBards’ stage. However, because of the palpable presence of the bicycles and associated equipment (especially the bells) driving both operations and aesthetics, bicycles were without doubt shapeshifters more often than scenery. Bicycles do not need to be mentioned

in feedback forms for it to be possible that all concerned noticed the part they played in the whole, and indeed, to insist on evidence on this point would be absurd. In a similar vein (to return to a point made in Chapter One), had I not mentioned (or resisted) the boxes of seeds on a feedback form about my Meander experience, this would not necessarily have meant there was no impact. The ecosystemic nature of the open secret revealed to me (see Figure 1.11, p. 58) suggests the opposite possibility.

The second piece of evidence is interesting in suggesting that feedback form respondents will allow themselves to be led by the form only if they agree with the direction of travel before they see the question. Notwithstanding the positive reactions described so far, four *A Midsummer Night's Dream* respondents and two *Hamlet* respondents pushed back on the term 'ecotheatre'. Two said it was 'just good theatre'. One described the term as 'worthy', another as a term 'mired in nonsense and irrelevancy'. However, that same person also said: '[...] this was ecotheatre. With bikes as transport and venue how could it not be [ecotheatre]? In short, silly question [...]'. In other words, this person seemed to be suggesting that he or she was fully bought into the HandleBards' ecotheatrical concept, making the question unnecessary.

Comments submitted after respondents had ticked the ecotheatre boxes on the electronic forms were even clearer on this point. Thirty-Six *A Midsummer Night's Dream* respondents submitted text, which continued themes of affirmation, pleasure and enjoyment and admiration observed elsewhere. However, just over a third (thirteen) of these respondents pushed back on direct questions about ecotheatre or the environment, the overall message being: don't talk to me about the environment, I appreciate where these questions are going, but, as a spectator, I am here to watch the good theatre produced by the HandleBards. One person even suggested that making the productions 'explicitly eco' might 'frighten some people away'. In the eighteen pieces of text submitted by *Hamlet* spectators at the same point in the survey, nine respondents pushed back on the 'ecotheatre' term in similar ways to the above. All of them were not irritated by these questions however – one person wrote, in contrast:

They make me think of how travelling players would have performed it in Shakespeare's day, and therefore give a sense of continuity, and of theatre/story-telling etc. being a fundamental human activity: something people have always done, always needed to do, and still need to do.

Notwithstanding this glowing response, the resistance produced by direct ecoquestions is very important, in the context of the theatrical event as an ecosystem. It is a reminder that obliquity and ambiguity are an important part of good theatrical productions. These feedback forms, playing their part by throwing the questions back, thereby turn a one-way feedback process into a multidirectional feedback loop.

Chapter Six: A Story of Contextual Theatricality as Shapeshifter

The evidence presented in this chapter is of interest because of the contradictions running through it. On the one hand, many of the respondents to the HandleBards' survey agreed that the productions could be described as ecotheatre. As would be expected, what people meant by this varied. For some people, on the evidence of text on survey forms, ecotheatre seemed to correspond quite closely to the concept discussed above. Other people thought the term referred purely to the operations of the company, such as the person in the indoor production of *Hamlet* for whom being indoors made the performance less ecotheatrical. Overall however, there is enough evidence in the text taken in aggregate to suggest that many of the spectators were aware that the aesthetics driving the performance style of the HandleBards (which they found funny and insightful) was a consequence of theatrical operations designed within tight environmental constraints. Overall, the evidence suggests that the HandleBards' performances are ecotheatrically effective in the sense discussed in the Introduction. They achieve this through a skilfully delivered fusion of operations and aesthetics, and this reinforces the experience of the ecotheatrical shapeshifter for spectators.

The inclusion of feedback form questions that did not mention ecotheatre, and those that did, teased out an important point for the issue of ecotheatrical efficacy. The fact that the environment is sometimes comically disguised as a bicycle in the HandleBards productions, and that, moreover, the bicycles are not often mentioned in feedback, is unlikely to denote the occlusion of the environmental shapeshifter on stage. On the contrary, the tone of much of the feedback text (and the willingness to agree that the productions were 'ecotheatre')

suggests it to be more likely that spectators will emotionally connect with the whole in the context of performance excellence.

In terms of the Chapter One mapping of ecotheatrical alignment (Figure 1.07, p. 44), the HandleBards belongs in somewhere between Quadrant Three and Quadrant Four. The company might be placed in Quadrant Four as a theatre company actively engaging on environmental issues as well as following an eye-catching approach to low-energy theatrical production that is consistent with the troupe's environmental mission. In one sense, the HandleBards approach is very effective: the contextual theatricality generated by the troupe's low energy mission shapes their performances in innovative and exciting ways that are loved by their audiences, and their following is growing steadily. Excellent though their work is in a theatrical sense, the jury is out on the broader ecotheatrical efficacy question. As a pilot study for low energy performance the cycling model works very well. However, there is no obvious means for many of the spectators to adopt a similarly bicycle-driven life style, especially when getting to the performances is often only practical by car. Thus, overall efficacy is reduced by a negative feedback loop (negative in the sense of running against the virtuous circle at work in the HandleBards' performances, as well as negative for the environment) in the form of incumbent transport and energy infrastructures. Returning to Kershaw's framing of the efficacy question driving this thesis: one answer suggested by this evidence is the 'possibility that the immediate and local effects of particular performances might – individually and collectively' contrive to 'shift the culture of communities in particular directions'⁴⁴⁴ is present as a feedback loop in the HandleBards' performances. However, as one HandleBards 2015 Summer Tour respondent put it: 'until global leaders face up to having to take a hit economically for the environment it's really all for nothing.' Returning full circle to Chapter One, contextual feedback loops (such as incumbent transport systems) are a powerful feedback loop pushing against the HandleBards' direction of travel.

Finally, this is a chapter about audience research methodology. Theatrical productions are, as Kershaw pointed out, 'ludic experiments'. Attempts to find out what the audience thinks are best done in the same spirit. A warm audience

⁴⁴⁴ Kershaw, 1992, p. 1.

attending an ecotheatrical production by choice, as in the case of the HandleBards' productions, is indicative of a living community culture. In practical terms, a warm audience makes it more likely that ecotheatrical efficacy will be very high because the momentum needed for that to be the case is well established. From the perspective of methodology and measurement this chapter confirms the notion that ecotheatrical efficacy may be impossible to measure if the requirement is for scientific experiments with controls. However, this is irrelevant when the very existence of spiralling feedback loops in the form of spectators enjoying theatrical peak experiences can be seen as evidence of ecotheatrical efficacy in the ecoanthropocentric sense discussed in the definitions of the thesis Introduction.

Chapter Seven. Reperforming Reception: *The Skriker* in 1994 and 2015

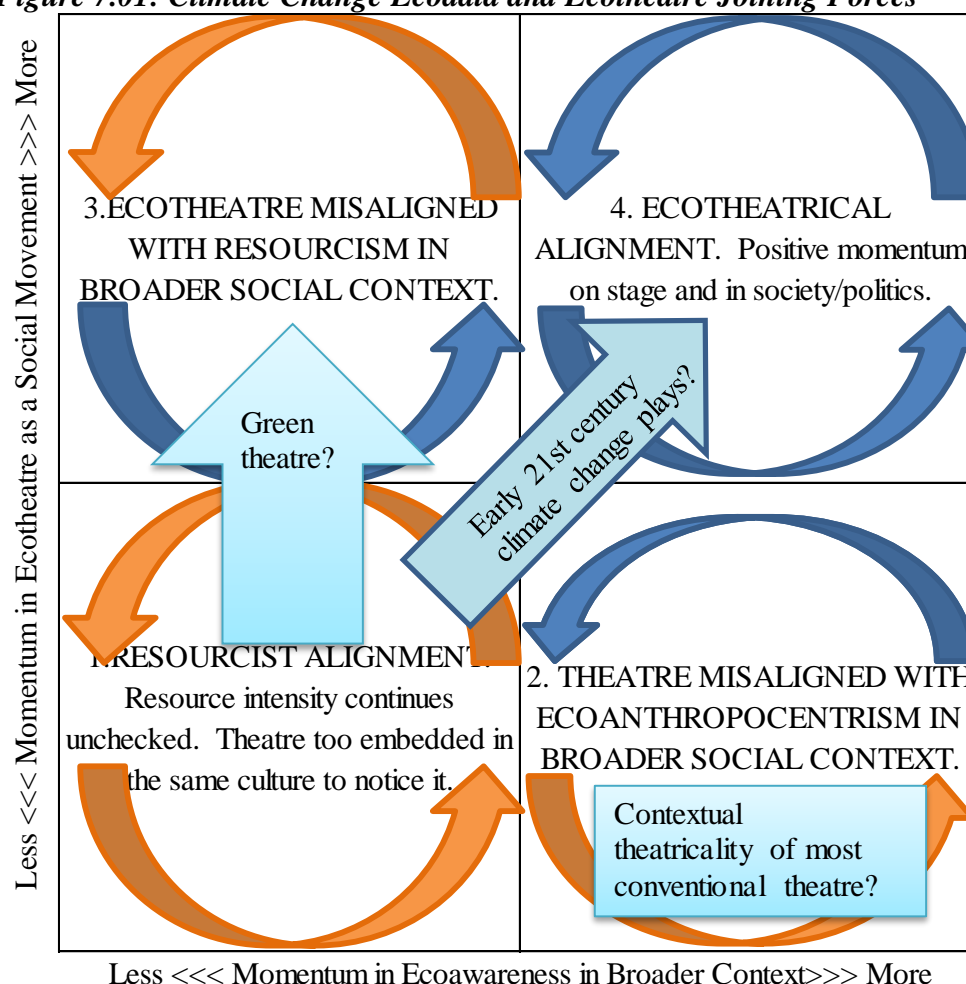
In the 2015 production of Caryl Churchill's play *The Skriker* described in the opening paragraphs of this thesis, the environment on stage can be described as an ecosystem knowingly embedded in the ecologies it performs as a system of feedback loops within a complex network of other ecologies. Precisely because the environment on stage is ecologically embedded in this play, spectators and production teams as other ecosystems themselves embedded in ecosystems of further ecosystems may well be incapable of perceiving the difference between nature as mere scenery and nature as shapeshifter. This perspective potentially explains why Churchill thought 1994 audiences had not noticed the environmental message in the 1994 production of this ecoanthropocentric play. In 2015, in contrast, *The Skriker* could be nothing other than a climate change play on the basis of evidence discussed in this chapter. Somewhere the system of ecosystems has rebalanced, providing an unusual opportunity to explore the idea of theatrical ecoefficacy over a relatively long period of time.

Cultural Change and Ecotheatrical Efficacy

The changed positioning of *The Skriker* between 1994 and 2015 brings together the ideas earlier depicted in two diagrams. Figure 1.06 (p. 42) described a potential alignment mapping for ecodata. In the four simple scenarios mapped in that diagram, the extent to which the environmental movement represented by ecodata and the positioning of environmental issues in the broader context are aligned was argued to play a role in shaping the direction and extent of the ecoefficacy of the environmental initiatives discussed in that context. Figure 0.01 (p. 14) discussed the possibility of intent with efficacy and without it; and the possibility that ecotheatrical intent does not have to be present for cultural change with respect to relationships with the environment to follow. Putting the two ideas together, when social and theatrical movements are aligned, theatrical efficacy may follow more readily from theatrical intent, or may happen when no political or other message was intended. It should also not be forgotten that because this argument is made in an ecological context, efficacy is potentially double-edged. Perverse effects are always a possibility in the context of any ecological initiative including ecotheatre.

The Skriker, which came to the stage in two markedly different cultural contexts for climate change in 1994 and 2015, is an opportunity to explore the extent of its ecotheatrical efficacy in these two different contexts: in 1994, just as climate change was beginning to gain political traction and in 2015, when it was more often accepted in political circles. Figure 7.01 depicts the possibility that the climate change movement at work in the cultural context and playing culture is also gaining significant momentum on stage. A difference in the reception of two productions of *The Skriker* may be symptomatic of better alignment between ecotheatre as an environmental movement, and climate change as a social movement.

Figure 7.01: Climate Change Ecodata and Ecotheatre Joining Forces



In 2015, it may be more likely than it was in 1994 that the environment on stage is visible to its spectators as an ecotheatrical shapeshifter. The second half of this chapter takes the opportunity to search for fragments of evidence with respect to any

such change, in the context of the reviews *Theatre Record* happens to have captured for both productions.⁴⁴⁵

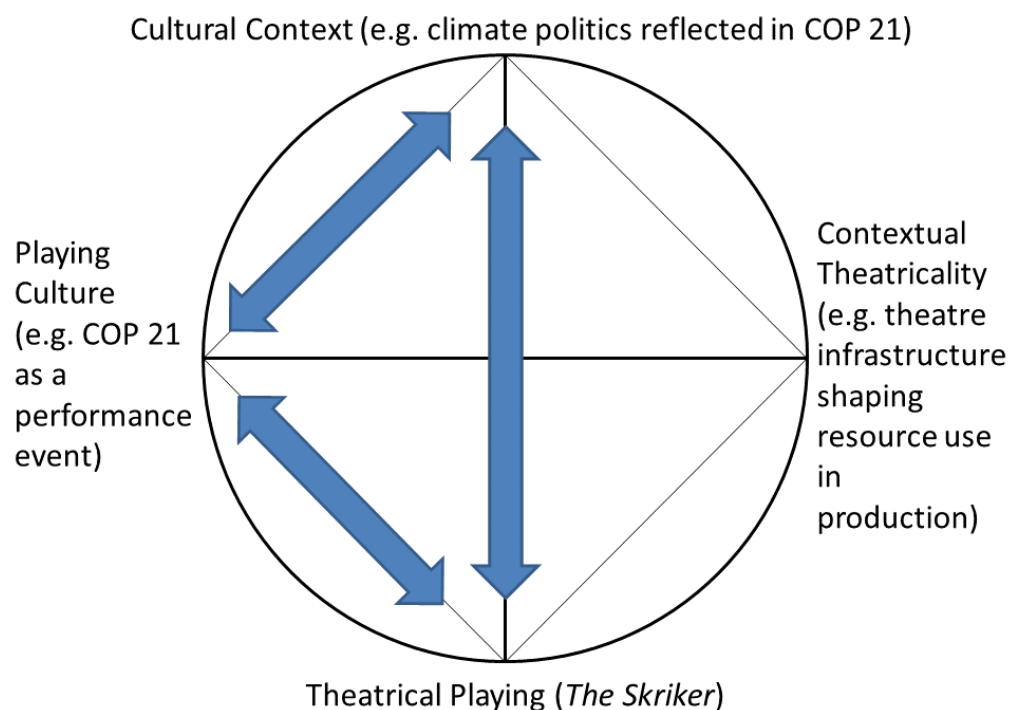
Two inter-related arguments thus underpin the work in this chapter. First, the progress made in the context of the December 2015 Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), in the form of the Paris Agreement, is unlikely to have been possible without a change in the cultural context, with regard to the positioning of climate change. Secondly, critical reactions to the 2015 revival of *The Skriker* discussed below are unlikely to have taken the shape they did without this same change in the cultural context. The ecological nature of the relationship between these two arguments – the fact that each of them is a system of feedback loops working together as well as in parallel – means that it is unlikely to be possible to prove any direct causality between the two movements either way. This chapter may not answer the efficacy question in terms of the relationship between theatrical performances and cultural change in the change in *The Skriker's* reception. Nevertheless, the juxtaposition of the COP21 outcome and the unveiling of the environmental shapeshifter on stage in *The Skriker* in 2015 is an opportunity to consider whether evidence can be found to confirm that the cultural and theatrical positioning of *The Skriker* has indeed changed as suggested on the basis that, if this is the case, it is unlikely to have happened in isolation. If *The Skriker's* reception has changed, it is highly unlikely that the cultural context has not. In terms of the Introductory definitions, two shapeshifting ecosystems – the play and the outside world – may be changing in themselves and changing each other. The question is whether this is enough to reposition ecotheatre more powerfully in the simplified ecosystem depicted in Figure 1.08 (p. 45).

In this chapter, the main focal point is thus cultural change in the context of the theatrical event as ecotheatre, with reference to the left-hand side of the Diamond Model discussed in Chapter Three. As represented in this model of the theatrical event the climate change positioning in the cultural context and playing culture nodes of the theatrical event is changing. This is indicated below in Figure 7.02 (p. 225). Climate change has become well established as an aspect of the playing

⁴⁴⁵ *Theatre Record*, *Openings 15-28 January 1994*, 'The Skriker' (Cottesloe), 27th January – 26th April, Vol. XIV (02), 93-98; and *Theatre Record Openings 2-15 July 2005*, 'The Skriker' (Manchester International Festival), 4th July – 1st August, Vol. XXXV (14), 724-725.

culture in the sense that it is regularly staged in several different contexts, in the arts and beyond. The complex, interactive UNFCCC climate talks are a theatrical (and ecotheatrical) ecosystem themselves, thus, part of the playing culture. The political performance is sometimes mimicked on stage (as in the UK climate change plays *The Contingency Plan*, *Greenland*, and *The Heretic*), and drives awareness in the broader context. The sheer number of the 2004-2012 UK climate change plays show the stage to be an active site of political engagement on climate change.⁴⁴⁶ Moreover, 2012 was not (as the time-range of the list of plays might suggest) a hiatus in this interest. The Paines Plough production of *Lungs* has run regularly since its first performance,⁴⁴⁷ an ongoing success also suggesting that something may have changed in the way audiences perceive climate change in recent years.

Figure 7.02: Aspects of the Diamond Model in Focus in Chapter Seven



Source: Sauter and Author

⁴⁴⁶ See footnote 30 for a list of plays and when they premiered; see also the UK Climate Change Plays below the main Bibliography, on p. 302.

⁴⁴⁷ *Lungs* productions: October – November 2011; September – October 2012; March 2013; August – September 2014; May – October 2015, Paines Plough Past Productions 2012-2015 <www.painesplough.com/past-productions>. There was no production in 2016, but the Roundabout itself featured in the Paines Plough list of productions between July and October 2016.

1994: Ecological Aphasia

The Skriker premiered in January 1994,⁴⁴⁸ just over eighteen months after the 14th June 1992 Rio Earth Summit, and not long before the first Conference of the Parties of the UNFCCC, COP1, which ran in the Spring of 1995.⁴⁴⁹ Themes woven through the text suggest that the play has always been a play about environmental degradation and climate change, even if not always so recognized. In a 2016 radio interview about the writing of the play in retrospect, Churchill described spirits in the play such as Thrumpins, Black Dog and Jennie Greenteeth as gradually escalating their invasion into human life,⁴⁵⁰ starting off with anomalous presences in the mental hospital and a bar and ending in full-scale invasion. This neatly captures the environmental narrative arc running alongside the story of the two girls (Lily and Josie) and the Skriker's attempts to own them for herself because she is needy and they are vulnerable. Alongside this structure run lines such as 'Now they hate us and hurt hurtle faster and master. They poison me in my rivers of blood poisoning makes my arm swelter,'⁴⁵¹ which hint strongly at ecological themes.

Given such clear references to the environment in the play text (and indeed the structural presence of a strong environmental thread of meaning in the play described by Churchill herself) it is surprising to find that the 1994 Theatre Programme does not once make a direct mention of the environment. Rather, it focuses on the fairy-tale characters that populate the play. There is a glossary for characters such as Black Annis ('[a] hag with a blue face and only one eye, she devours lambs and young children'); Jimmy Squarefoot ([a] pig-like man, ridden by a stone-throwing giant) or Skriker itself ('[a] shapeshifter and a death portent [that] wanders about in the woods uttering loud piercing shrieks').⁴⁵² The programme recounts a few of the fairy tales that shaped the Skriker's language, drawing on K. M. Briggs.⁴⁵³ To give two short examples, one tells the story of the wicked

⁴⁴⁸ Churchill, 1994, p. 7.

⁴⁴⁹ UNFCCC, Documents of the Conference of the Parties COP1, Berlin, 1995. <unfccc.int/COP4/resource/cop1.html>.

⁴⁵⁰ Churchill, 'Introduction to the Radio 3 Broadcast of *The Skriker*', *Drama on Three*, 20 Mar 2016 <www.bbc.co.uk/programmes/07454g5>.

⁴⁵¹ Churchill, 1994, p. 12.

⁴⁵² National Theatre, Theatre Programme, *The Skriker*. January 1994.

⁴⁵³ Briggs, *The Fairies in Tradition and Literature* (Routledge and Keegan Paul, 1967); and Briggs and Ruth L. Tongue, *Folktales of England* (Routledge and Keegan Paul, copyright the University of Chicago, 1965).

stepmother who sent Rosy to fetch something from a chest with a heavy lid. This fell on her and killed her, so the stepmother duly baked Rosy into a pie for her father and sisters to eat. Rosy came back as a ghost and sang about what had happened, so the wicked stepmother suffered a fate that did not sound very ignominious considering the crime – she ‘died lonesome’. Another tells the story of a farmer who was too frightened to go out in the dark. He eventually confessed to his wife that a Bogey was coming to get him because when ‘he were a silly young lad’ he had sold himself to it. His wife baked a red-hot iron into a pie, the Bogey bit on the bait, and was ‘scorched bewtiful’.

Although the programme does not directly discuss the environmental themes embedded in the play, members of the audience who attended the Platform discussion in which Nicholas Wright interviewed Churchill the day after the play’s 1994 opening night would have been aware that they were there. In this forty-three-minute discussion the theme came up several times. Asked about the themes, Churchill observed that one of the most constant, over the ten years it took to write the play, was ‘feelings to do with damage and loss’ – relating to both the damaged world and damaged people.⁴⁵⁴ Asked about the Skriker’s language – phrases such as ‘poison in the food chain saw massacre’ where words change their meaning and take the sentence off in unexpected directions – Churchill explained that this was also about damage. Her intention was to have ‘it’ (the Skriker) ‘have a damaged way of speaking so it could not hold a train of thought’, resulting in a creative aphasia described by one critic as a ‘careening mish-mash’.⁴⁵⁵ When Wright asked Churchill if she believed in fairies she explained that of course she did not, although one of her aims in writing the play had been to enjoy the stories for their own sake. However, this was also a way to ‘write about [...] damage to the world, because it’s the fairies that are damaged and neglected’. Churchill wanted to talk about damage to the environment without coming over as ‘incredibly direct and horribly obvious’. Her hope was that the message would come through at the level of the stories about the spirit characters in the play ‘without being so quiet and without sounding as

⁴⁵⁴ Wright and Churchill, Royal National Theatre Platform Interview on the Premiere of Churchill’s play *The Skriker*, January 28th 1994. Audio recording accessed in NT Archives, 11th April 2016.

⁴⁵⁵ Claire Allfree, *The Skriker* Review, *Daily Telegraph*, 6th July 2015, repr. *Theatre Record*, XXXV (14), 724.

[clunky]⁴⁵⁶ as it sounds to me when I say it.’ Later, in the same Platform discussion, a non-English member of the audience asked if English people were familiar with all the fairies in the play, and this prompted Wright to add a question – whether people not knowing about them was one reason why the fairies were damaged. ‘Yes’, said Churchill, ‘It’s one of the things they are furious about. They’d [...] like to think anyway that there was a time when they were respected.’ Wright drew the theme out further: ‘It’s the natural world that’s being built up and streams dried up and all that.’ Churchill’s reply was:

Yes. As far as they are spirits of a stream or spirits of this and that [...] they feel poisoned and ignored and [...] physically damaged. Because no one thinks about them they feel neglected and not thought about so they are extremely angry at the beginning of the play.

What the above suggests is that the 1994 production was intentionally ecotheatrical but that environmental degradation was regarded as a difficult subject to thematise or problematise on stage. In 1994, it seems that environmental damage and related issues such as climate change were not always readily accepted in the cultural context. Thus, in the Diamond Model dynamic depicted above (Figure 7.02, p. 225) there would be little or no connectivity between what was happening on stage and the broader cultural context (the vertical arrow in the diagram). Churchill herself suggested as much in March 2016, when she introduced the Radio 3 version of the Manchester International Festival production of *The Skriker*, also starring Maxine Peake:

By the end there would be creatures [...] rampaging through the world and Black Annis destroying the world by floods, because this was of course partly an environmental play, though I was concerned that it should not be clunkily obvious and in fact it was so unobvious because at the time people weren’t so aware of things like climate change and pollution as they are now, that I don’t think anyone noticed.⁴⁵⁷

⁴⁵⁶ This word was impossible to hear because of the quality of the recording; ‘clunky’, which Churchill uses quite often elsewhere, captures what she seems to have meant.

⁴⁵⁷ Churchill, 2016.

The above discussion is of note in recalling the final section of Chapter Six, in which respondents to feedback forms pushed back on questions about ecotheatre and the environment. These respondents seem to agree with Churchill in quite reasonably objecting to the ‘clunkily obvious’ in the context of good theatre. However, the evidence in feedback form comments in Chapter Six also suggests that the HandleBards’ 2015 audiences did ‘notice’ the HandleBards’ environmental concept and understood what the bicycles stood for. Put together, these two pieces of evidence from the two thesis chapters suggest that attitudes to the environment may have changed somewhere in the cultural context.

2015: ‘A Call to Arms from the Earth Herself’

The difference in the two cultural contexts, 1994 and 2015, is fully reflected in the contrast between the theatre programmes for each event. The introduction to the 2015 Royal Exchange Theatre Manchester Programme introduces the *Skriker* as representing ‘environmental fury in extremis’, and the play as ‘a call to arms from the Earth herself.’⁴⁵⁸ Rachel Clements, Lecturer in Drama, Theatre and Performance at Manchester University is cited as describing the *Skriker*’s ‘blunt statement of ecological catastrophe [as] just one of the play’s pressing concerns.’⁴⁵⁹ The Programme also carries an extract from Naomi Klein’s climate change polemic *This Changes Everything: Capitalism Vs the Climate*.⁴⁶⁰ The extract opens by describing the ‘alarm bells of the climate crisis’ as having been ‘ringing in our ears for years and [...] getting louder all the time.’ Despite that, she says, ‘humanity has failed to change course’, recalling the unchanging trends in the charts of Chapter One. She asks ‘what is wrong with us?’ The Programme thus positions this production of *The Skriker* as highly political ecotheatre.

There are, moreover, many moments that, to my ecocritical 2015 eyes watching the Manchester production, could be described as ecotheatrical, even if not so understood in 1994. One that stands out is a comical scene in a bar, in which Lily flounderingly tries to explain how TV works.⁴⁶¹ This scene suggests humorously

⁴⁵⁸ Sarah Frankcom, Introduction, Theatre Programme – *The Skriker* (Manchester: Manchester International Festival, 2015), p. 5.

⁴⁵⁹ Clements, ‘Spring Will Return and Nothing Will Grow’, Theatre Programme, pp. 9-10.

⁴⁶⁰ Klein, *This Changes Everything: Capitalism Vs. the Climate* (London: Penguin Books, 2014). An extract appears in the Theatre Programme on pp. 13-17.

⁴⁶¹ Churchill, 1994, p. 20.

that most human beings have no understanding of what makes it possible for them to exploit the energy that drives their substantial natural resource footprint, therefore no means of controlling this behavior because the knowledge feedback loop is missing. Another brief but remarkable moment is the Skriker's question to Josie in the Underworld as she persuades her to have a drink so she will be unable to escape: 'Don't you want to feel global warm and happy ever after?'.⁴⁶² Such moments (and chuckles I noticed in the Manchester International Festival audience as Peake spoke the words) signpost the metaphor that can be seen as structural to the play: the damaged spirit world stands for damaged, neglected planetary ecologies.

1994 Reviews: 'Not Entirely Unembarrassing – Believe in Fairies, Get Green'

Churchill was not far from the mark when she said that she did not think anyone had noticed the ecological themes in 1994. The 1994 edition of *Theatre Record* republished eighteen reviews. Just two of these reviews discuss the environment, the planet or the ecosystem directly. Paul Taylor of the *Independent* talked about the breakdown between the human and 'faery' worlds as part of an overall dynamic of environmental degradation: 'now they hate and hurt natural spirits in their catastrophic abuse of the environment'.⁴⁶³ Billington included a sixty-two word passage of ecocritical comment in his review, amounting to thirteen percent of the word-count, in which he described the Skriker as 'an eco-prophet of doom foreseeing the death of the planet'.⁴⁶⁴ However, both critics make it clear that they are either uncomfortable with the idea of environmental campaigning in this production, or unsure about it. Taylor writes off the ecological connection in his final paragraph: 'But the environmental dimension of the play is not entirely unembarrassing; if you believe in fairies, get green.'⁴⁶⁵ Billington is at first more accepting of the theme. He directly cites a powerfully ecocritical line of text from the Skriker's 'most potent speech in the play – because it touches on a common human fear, [the death of the planet]'. He further elaborates on it for the reader in a

⁴⁶² Ibid, p. 36.

⁴⁶³ Taylor, *The Skriker* Review, *Independent*, 29th January 1994, repr. *Theatre Record*, XIV (02), 94-5 (94).

⁴⁶⁴ Billington, *The Skriker* Review, *Guardian*, 29th January 1994, Ibid., 97.

⁴⁶⁵ Taylor, 95.

manner that suggests identification with the theme. However, he then moves on to say:

As she says, ‘It was always possible to think that whatever your personal problem, there’s always nature.’ Not, however, in a world of seasonal disturbance and apocalyptic meteorological phenomena. But in a classic fairy tale a simple story naturally gives rise to multiple meanings; here you have to impose the meanings on the story just to make sense of it.

The crux of the above passage is the word ‘but’, which undercuts what he had just written. Having seemed to identify with *The Skriker*’s ecocritical threads of meaning for sixty-two words, in his next thirty words he describes them as imposed on the story. Billington seems to reject the idea of ecoprophecy because the production is (as he stated in his opening paragraph) ‘strangely opaque’, thus he cannot be sure he is reading it right.

Another, less direct measure of the extent to which the play’s ecological threads of meaning were noticed is the frequency with which critics quote obviously environmentally-relevant pieces of text. Apart from Billington, cited above, Neil Smith of *Time Out* includes ‘toxic waste paper basket case’ in a list of three phrases designed to illustrate the ‘Joycean construction’ of Churchill’s language.⁴⁶⁶ A third critic, Peter, who wrote his review as a one-thousand-three-hundred-word mock interview between the critic and his reader, cites a six-word ecofragment – ‘poison-in-the-food-chain-saw-massacre’ – as an example of a ‘bizarre’ language that sounded as if it had been invented by Bosch.⁴⁶⁷ Overall these comments suggest that, although some picked up on the ecotheatrical themes present in *The Skriker*, it was in a minor way.

Other commentators did not seem to ‘notice’ the environment at all. The following academic review from the *Theatre Journal* suggests several other possible themes and hints at the sense of bafflement described by many reviewers:

The Skriker incorporates the gender-bending phantasmagoria of *Cloud Nine*, the exploration of class and gender of *Top Girls*, and the social critique of

⁴⁶⁶ Smith, *The Skriker* Review, *Time Out*, repr. *Theatre Record* XIV (02), 96.

⁴⁶⁷ Peter, *The Skriker* Review, *Sunday Times*, Ibid., 97-8 (98).

Serious Money, but its politics are far less conspicuous and its technique, despite its quirks, more conventional.⁴⁶⁸

Themes identifiable in this critique include gender, feminism, class, and capitalism. An ecocritical perspective is significant only by its absence, although, as Susan Bennet, discussing a version of this work with me in the context of the IFTR conference in Stockholm in 2016, commented, environmental concerns were often woven through the feminist movement from the 1970s onwards. A possible reading of her comment is that feminism and environmentalism could be described as feedback loops potentially reinforcing each other as co-movements in this play and its productions, especially in the context of the broader cultural ecosystem. Thus in 1994 the embarrassment felt by some of the male critics could be seen as resistance to the combination of them, rather than to environmentalism itself. I do not explore this idea further, but note that it could be a direction for further research in another project.

2015 Reviews: Climate Change as ‘Moral Rupture’

In contrast to the reviews of 1994, all seven of the reviews published in the 2015 edition of *Theatre Record* marked out the environment or climate change as a theme and all but one (Robert Gore-Langton of the *Mail on Sunday*) took the issue seriously, variously discussing ‘environmental terrors’,⁴⁶⁹ ‘environmental collapse’,⁴⁷⁰ the ‘revenge of nature for the human despoliation of the earth’,⁴⁷¹ the suggestion that ‘climate change feeds on our bones’,⁴⁷² and ‘an environmental tragedy that here looks like a moral rupture’.⁴⁷³ Climate change and environmental degradation are thus identified as important themes in the play and the production by the 2015 critics. One critic even thought that this production ‘underplayed’ the environmental dimension.⁴⁷⁴ Another saw the *Skriker* herself as ‘a malevolent reminder of how nature may turn on us at any minute’.⁴⁷⁵ Of the eight extracts of

⁴⁶⁸ Ralf Erik Remshardt, ‘Performance Review: *The Skriker* by Caryl Churchill, Royal National Theatre, London’, *Theatre Journal*, 47 (1) (1994) March, 121-123.

⁴⁶⁹ Allfree, 2015.

⁴⁷⁰ Dominic Maxwell, *The Skriker* Review, *The Times*, 6th July 2015, repr. *Theatre Record* XXXV (14), 724.

⁴⁷¹ Paul Valley, *The Skriker* Review, *Independent*, 8th July 2015, Ibid., 725.

⁴⁷² David Jays, *The Skriker* Review, *Sunday Times*, 12th July 2015, Ibid., 725.

⁴⁷³ Susannah Clapp, *The Skriker* Review, *Observer*, 12th July 2015, Ibid., 725.

⁴⁷⁴ Allfree, 2015.

⁴⁷⁵ Jays, 2015.

quoted language four are ecoquotations. Overall, six out of seven the 2015 reviewers seem to identify strongly with the production as outstanding theatre and ecotheatre.

I did not see the 1994 production therefore I am not able to compare 1994 critical reviews with other spectatorial responses. However, it was clear from small pieces of evidence I noted down as a spectator myself, that for at least some of the other spectators the Manchester production in 2015 was perceived as being about the human degradation of natural systems. As I waited in the foyer to take my seat, for example, someone in a small group of people behind me informed those with whom she was sharing the programme: 'It's about what we're doing to the environment.' Listening to the audience sitting around me as I watched the play I was struck by chuckles at the Skriker's 'global warming' comment in the underworld. Such anecdotal evidence is weak taken in isolation, however critical reviews may provide stronger evidence.

Theatre Reviews as Potential Evidence of Cultural Change

The above-cited reviews by critics such as Billington, Smith, Gore-Langton, Peter, Allfree, Maxwell, Valley, Jays and Clapp, which were captured for posterity in *Theatre Record*, provide in freeze-frame a set of reactions of a specialised segment of the audiences who saw the two productions. This cohort of writers as a source of evidence on cultural change is not necessarily ideal. Perhaps most importantly newspaper critics are unlikely to be representative of the broader cultural context, on the basis that they may be quite homogenous as a group, having similar educational back grounds and cultural biases. The social make-up of the 'anomalous' group humorously described by Prescott as 'criticus rotundis Oxoniensis', contains overlaps with the group of critics cited in this thesis and this chapter.⁴⁷⁶ In addition to the lack of cultural diversity in the group, 21st century newspaper critics face increasingly tight constraints relative to the 1990s, in the form of an increasingly functional star-driven reviewing culture in the context of a reduced word-count. Such conditions potentially limit and may distort what they say, in 2015 relative to 1994. Thus, there is a possibility that the 2015 reviews might contain less information about the reception of this play than the 1994 reviews did just because

⁴⁷⁶ Prescott, *Reviewing Shakespeare: Journalism and Performance from the Eighteenth Century to the Present* (Cambridge: Cambridge University Press, 2013), p. 144.

there is less scope for textured commentary. Nevertheless Prescott identifies reviews as ‘enormously fruitful’ in the context of Shakespearian reviewing, when used as ‘guides to the ways in which audiences of the past have read performance, have found meaning in theatre and have negotiated the worth of Shakespeare’.⁴⁷⁷ An advantage of using reviews in this way in this ecotheatrical context is that any findings suggestive of cultural change, produced in the context of the tighter 2015 constraints described above, are potentially more meaningful. A further advantage is that ecocritical reviewing (should it be identified in the reviews) is unlikely to be trammelled by the tacit rules of engagement at work in Shakespearian reviewing as described by Prescott. On the contrary, ecocritical theatre might even have the potential to elicit a range of responses even in a group that potentially lacks cultural diversity. Overall, the advantages seem to outweigh the disadvantages of leveraging this body of text in this specific context.

Research questions that can be addressed thanks to the two bodies of reviewer text available for analysis include the following. To what extent is it (or is it not) the case that the 2015 production of *The Skriker* was interpreted by spectators – as represented here by critics – more ecologically than the first? Secondly, to what extent did such spectators watching the two productions respond as might be expected considering the discussions of the theatrical event in Chapter Three? Recapping Sauter’s approach, did they show pleasure, sympathy, empathy and identification or their opposites to a greater or lesser extent or in different ways, in response to the two productions? Are different levels of response (once again following Sauter) at sensory, artistic or symbolic levels observable and if so are they broadly similar, or markedly different between the two productions? Thirdly, can evidence be found to suggest that ecological issues connected to emotional reactions to the performance in 2015, but less so in 1994? If the extent to which spectators identify, empathize or sympathize with the production can be systematically observed, this may be potential evidence of the extent of emotional (thus also cognitive) involvement at work in the two bodies of text. To cite Sauter himself:

On an emotional level, the spectator experiences identification, empathy, and sympathy – and their opposites – in relation to both character and performer.

⁴⁷⁷ Ibid, p. 22.

[...] The intellectual reactions of the spectator likewise are directed toward both the fictional content, its interpretation and evaluation, and the act of presentation, including the acting skills, the beauty of the sets, the rhythm of the performance, and so on.⁴⁷⁸

My first reading of a selection of *The Skriker* reviews drawn from the two years in question suggested that the writing was different in a manner that might be potentially quantified by means of qualitative research techniques known as textual encoding, sometimes applied in the humanities by means of technology software such as the Text Encoding Initiative known as TEI. Critics writing about performances and productions along the lines described by Sauter, above, do not communicate their reactions to these and other productions through explanation and description alone. Short pieces of creative interpretation and description are regularly woven into many of the reviews even in the context of shorter 2015 word counts. For example, one 2015 critic describes the theatre as ‘transformed into an underground bunker bedlam’,⁴⁷⁹ another describes the play as ‘piercing the membrane between the real and the imagined, sanity and madness’.⁴⁸⁰ My first impression, on reading the reviews, was that there might be more of such creative writing when the critic liked the production and was drawn in to it emotionally and cognitively as a spectator. Some critics seem to revel in language that reperforms their reaction to the performance. This is an effective way of communicating their pleasure in the performance, or indeed strong reactions in the opposite direction, at the same time as seeming to convey an intimate glimpse of the performance to people who did not see it, or to share a different perspective for those who did. I found these passages particularly interesting in the context of this thesis. I wondered whether the proportion of any given review devoted to such creative interpretation might be a reasonable reflection of varying levels of empathy with the production. For this, I would need an experimental framework focusing on what critics talk about in reviews, and how they talk about it. The time available to develop and implement this idea in the context of this PhD means that the ecodata work that follows is better

⁴⁷⁸ Sauter, 2000, loc. 345.

⁴⁷⁹ Valley, 2015.

⁴⁸⁰ Allfree, 2015.

described as a pilot-study than a complete research exercise, and a potentially exciting direction to develop further.

What Critics Talk About in Reviews

In deciding on suitable encoding categories for what critics talk about I drew on the empirical work of others as well as being guided by the structure of the reviews themselves. Tadeusz Kowzan's well known classification of thirteen theatrical sign systems is helpful in suggesting a range of topics critics could potentially focus on. It falls into five broad categories: spoken text (word and tone); expression of the body (mime, gesture and movement); actor's external appearance (make-up, hairstyle and costume); appearance of the stage (properties, settings and lighting); inarticulate sounds (music and sound effects).⁴⁸¹ In the case of *The Skriker*, most critics do not segment their material into so many divisions. In the body of reviews examined in this chapter, critics discuss the language of the play and the way the lead actor delivered it because the language was an important aspect of the play. They talk about lead actor's performance and appearance as one element, focusing on what mattered most within this. They talk more briefly about sound, props, setting and lighting. However, movement, sound and design are often mentioned in the context of an assessment of the overall production, as an illustration of how everything worked together, or not.

For the analysis described below, the following were identified as key elements in the reviews in question: the production overall; the contextual positioning of the production as a performance, or as theatre; the writing (and the writer); sound and music; design and set; the performance of the lead actor, the supporting actors and the ensemble of dancers; meaning and ecotheatrical threads of meaning; and the plot. Some of the conclusions in Sauter's empirical work suggest that such topics, put together, are a reasonable structure for textual analysis. The following description of audience survey work, for example, is an important cornerstone for the work in this chapter:

We compared a number of topics that were graded by the participants, such as the play, the set, the dramatist, the lighting, the music and so forth. It turned out that the only issue that correlated constantly with the overall

⁴⁸¹ For a summary of Kowzan's system see Elaine Aston and George Savona, *Theatre as Sign-System* (London: Routledge, 1991), pp. 105-107.

judgement of a performance were the actors. [...] And there was another consequence noticeable in our material: only when the performance was appreciated in positive terms were the spectators interested in discussing the content and the topic of the performance itself.⁴⁸²

The above suggests that a comparison of the spectatorial reactions to a list of topics like those discussed above in published reviews should help to identify the presence of potentially successful emotional and cognitive feedback loops. Combined with an analysis of how critics talk about those topics, a systematic comparison of the relative ecotheatrical efficacy of the two productions might be possible. The second half of the quotation above suggests that the quality of the acting might determine the willingness or otherwise of critics, as a specialist corner of the audience, to accept the parallel drawn, by Churchill and the production company, between the natural and spirit worlds. Conversely, a negative response to the actors' performance might imply less willingness to engage with ideas thematised in the play.

How Critics Talked About Feelings and Experiences in *Skriker* Reviews

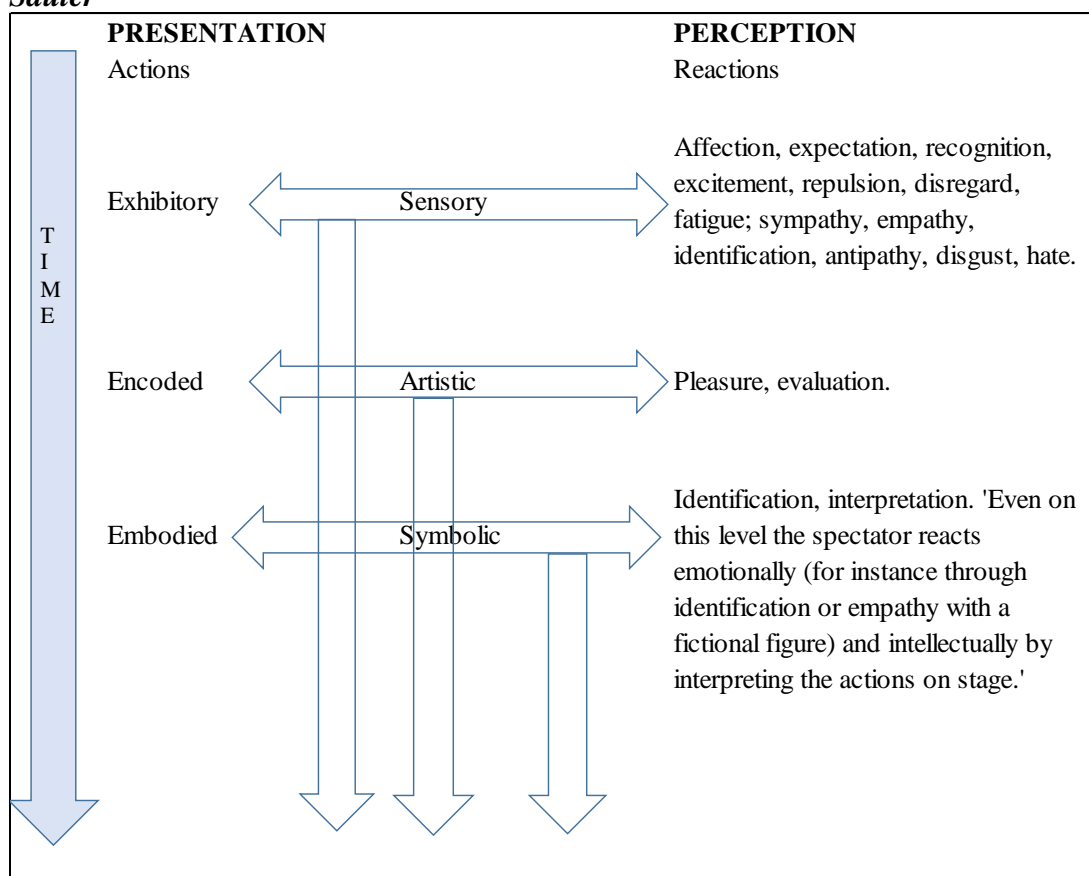
The ontology created for this aspect of the analytical framework is based on the theatrical events framework explored and discussed in Chapter Three, where common audience reactions such as identification, empathy and sympathy play out at in different ways and at different levels, such as sensory, symbolic and artistic. These concepts inter-relate as shown in Figure 7.03, which is my redrawing of a hand-drawn diagram in *The Theatrical Event*.⁴⁸³ Sauter's model of responses needs to be adapted to allow for the creation of encoding categories that overlap as little as possible. One challenge is that terms such as identification, empathy and sympathy have meanings in common. A brief experiment confirmed the difficulty of arriving at a stable definition while encoding even short pieces of text. I therefore merged these three terms and used the word 'empathy' in marking up fragments of text to denote responses falling somewhere between identification, empathy and sympathy.⁴⁸⁴

⁴⁸² Sauter, 2010, p. 247.

⁴⁸³ Sauter, 2000, loc. 134. Text added from the surrounding explanation, loc. 125-144, and later in the book, loc. 1641.

⁴⁸⁴ The choice of the term empathy was not entirely driven by empirical pragmatism. Following McConachie, 2008, I note that 'Empathy is not an emotion but it readily leads viewers to emotional engagements' (p. 65); 'Embodying others' emotions produces emotions in us' (p. 67); and 'empathy may produce sympathy' (p. 76).

Figure 7.03: The Relationship between Production and Reception as Modelled by Sauter



Source: Sauter (2000), loc. 131-151 (diagram at loc. 137); loc. 1641

I also needed a way of capturing the ‘pleasure’ response shown centre right in the above diagram. This is a key spectatorial reaction in Sauter’s work,⁴⁸⁵ and analysis is complicated by the fact that Sauter talks in terms of ‘four emotions – pleasure, empathy, sympathy and identification’. I identified moments when the critic affirms in one way or another that the play is worth going to see from the perspective of a spectator in search of an enjoyable performance. Such moments, expressions of pleasure and admiration, are labelled ‘affirmation’ (as in Chapter Six). The opposite responses also needed to be identified to see whether ecotheatrical themes are indeed less visible to spectators not enjoying the performance of the actors. For the opposite of affirmation, I used the term ‘objection’, to encompass rejections of themes in the play (including ecothemes) or

⁴⁸⁵ Sauter, 2000, loc. 738. Here he footnotes Schoenmakers, ‘Aesthetic Emotions and Aestheticised Emotions in Theatrical Situations’, in *Advances in Reception and Audience Research*, vol. 3.

expressions suggestive of failure to engage emotionally or cognitively with the production.

Considering how to apply the three levels of response (sensory, artistic and symbolic) shown in Figure 7.03 (p. 238) in the mark-up ontology, I noted that Sauter himself was at pains to point out ‘the difficulty of distinguishing between encoded actions’, defined as those having an intended theatrical meaning, and those that do not have an intended meaning. He explains this as follows:

There is no Hamlet on stage: he is only in the mind of the spectator, aided through the images presented by the performer. Even on this level the spectator reacts emotionally (for instance through identification or empathy with a fictional figure) and intellectually by interpreting the actions on stage.⁴⁸⁶

For the sake of completeness, I ran a short test in which I attempted to mark ‘symbolic’ responses in the review texts. It was as difficult as the above suggests. It seemed potentially more productive to follow the experienced lead of others (such as Sauter and Purcell, my supervisor) in accepting that everything on stage is potentially symbolic. My approach was to mark instances of sensory or artistic response, leaving the presence of symbolic readings to speak for themselves. In the event, reactions to the two productions captured in this way did indeed emerge in the analysis below, in a manner that suggests critics to have been more involved in thinking about symbolic meanings in 2015 than they were in 1994. Finally, to Sauter’s artistic and sensory response levels I decided to add an ‘objective’ level of response, to capture factual, thus, less creative areas of text.⁴⁸⁷ The presence of Billington in both the 1994 and 2015 review cohorts was an opportunity to play experimentally with the ideas at work here before embarking on the analysis.

Billington: What He Wrote About, and How, in 1994 and 2015

Billington’s 2015 review of *The Skriker* begins, as do several of the reviews in the cohort, with a positioning statement, designed to catch the reader’s attention, but also to indicate to the reader how the production struck him as a critic. He leads, as a second-time spectator and reviewer in 2015, with a strong hint that he has had a

⁴⁸⁶ Sauter, 2000, loc. 144.

⁴⁸⁷ I thought this might reveal whether reviews are more factual when the critic is less emotionally engaged in the performance. This hypothesis did not hold, as further discussed below.

change in view: ‘Plays change with time’.⁴⁸⁸ He also contextualises this Manchester International Festival production as a ‘darker’ version of William Shakespeare’s *A Midsummer Night’s Dream*, and as distinguished by the ‘magnetic’ Maxine Peake in the leading role. He thus draws on *A Midsummer Night’s Dream* as shorthand in his description of the plot,⁴⁸⁹ and also describes important aspects of the play, such as the language:

At [...] times the play seems like an experiment with language in which the Skriker adopts a densely pun-filled style (‘champagne the pain is a sham pain the pain is a sham’).

However, what I found interesting about his 2015 review, in relation to the 1994 version, was the greater emphasis on creative interpretation, as opposed to straight description, in several sections of text. In 1994, this is how he described the personage of the Skriker:

We first see the Skriker – the protean Kathryn Hunter – looking like some squat, hairy insect and plotting revenge for ancient wrongs in a dense, pun-packed Joycean prose.

The equivalent lines in 2015 seem to be a description of the Skriker’s role in the plot, but they are far more than that:

Driven by a mixture of neediness and revenge, the Skriker craves to be part of the human cycle yet comes attended by a bevy of Breughelian underground spirits and seems bent on mortifying her human contacts.

Each passage is a piece of creative description in the sense intended above. Both focus on the artistry of the leading player’s performance. However, they are also different for what they suggest about the quality of Billington’s response to the lead player’s performance. The 1994 lines concentrated on the Skriker’s striking external spidery appearance and shape-shifting capabilities, suggesting empathy (as used in

⁴⁸⁸ Billington, *The Skriker* Review, *Guardian*, 6th July 2015, repr. *Theatre Record* XXXV (14), 724-5.

⁴⁸⁹ Intertextuality embedded in this comment may include his memory of Smart’s set, a ‘cuboidal white box, reminiscent of the gymnasium in Peter Brooks’ famous *Dream*’, as described by Coveney in 1994.

this analysis) with the actor as well as what she was seeking to project. The description of her appearance and bodily movement can be described as operating at Sauter's 'artistic' level. Billington may also identify to an extent with the protagonist herself on the basis that 'plotting revenge' looks briefly into Skriker's psychology. In 2015, however, he adds more texture to his exploration of Skriker's psychological make-up. The words 'neediness', 'revenge' 'craves' are not objective descriptions formed in the cold light of day, but phenomenological reactions to Peake's performance. Billington's reaction to the 2015 Skriker can thus be described as sensory much of the time. The Skriker 'ardently' (sensory level) pursues Lily and Josie, she 'oscillates' (artistic) between evil spirit and fairy godmother (artistic); Hunter displayed 'prodigious chameleon skill' (artistic). For Billington, Peake and Hunter seem to be well matched in terms of their 'chameleon' artistic skills. However, when he describes Peake as 'embracing within herself male and female, tough and tender, vengeful and vulnerable', he is looking within, and reflecting about how (he feels) she feels, thus the level of empathy in his second review goes to a deeper level. He is responding emotionally to a performance that was very strong from both 'sensory' and 'artistic' perspectives. His painterly description of the spirits cleverly captures movement by recalling the pullulating scenes ('bevy' is thus used at a sensory level) characteristic of Breughel's pictures. The phrase 'bent on mortifying' (sensory) is an interpretation, indicative of cognitive processes at work as the critic sought to understand what was happening, while 'seems' suggests a moment in which the critic as spectator steps back to reflect, partly puzzled by the seemingly irrational behaviour of the Skriker.

Sometimes, creativity extends further as the performance triggers moments in which the critic is playing pleasurably with language, not just as a means of communicating what he or she felt and thought, but as a part of the theatrical experience. Hence, Billington describes the Skriker as (unlike Puck) 'chillingly visible [...] to the two girls whom she haunts and pursues', the ensemble of dancers as '[threading] their way through the action like sinuous ghosts', and the set as 'a distressed echo-chamber filled with bare wooden tables'. Such passages are densely written because of the way words are used – multiple meanings are conveyed through words like 'threading' and 'distressed'. A layering of meanings in the

writing suggests a complex and highly engaged response to the production in the critic.

The Environment – Scenery or Shapeshifter for Billington?

The description of Billington's two reviews, above, suggests that there was more emotional content in his 2015 review, and a deeper engagement, to use McConachie's word, with the lead protagonist. Was there also a change in how he responded to the environmental threads in the play? Conveniently for this discussion, Billington is consistent in spotting the ecotheatrical theme in the play on both occasions, and (all-importantly) not consistent in the way he reacts to it. In 1994, in Frijda's terms, Billington identifies a 'daily life concern' but the production failed to act as a catalyst to set going the 'emotional process' because 'puzzlement' overwhelmed the cognitive processes necessary to connect the daily life concern to the emotions. In contrast, in 2015 he described his own embodied response to the environment:

But what hits one between the eyes now is Churchill's concern with ecological disaster. This is made manifest in a deeply moving speech that lists today's prevailing meteorological extremes and talks of mankind's historic reliance on the seasons: the assumption that 'spring will return even if it's without me, nobody loves me but at least it's a sunny day'.

For Billington, the 1994 production of *The Skriker* was not ecotheatrically effective in the sense that it did not connect environmental concerns to the emotions. In 2015, in contrast, his comments point to embodied emotions in the opening few words, to an awareness of being moved, and to an emotional connection to the ecosystem of ideas embedded in the play. Even his selection of quoted words ('spring will return [...]') is likely to have a different impact on the review reader, thereby reperforming their effects on Billington during the performance. The words cited in 2015 are an example of Churchill's language but they also reflect a vicarious experience of the despondency human beings feel when there is no sunlight. This choice of words suggests an emotional connection to the environmental themes in the play.

Capturing What Critics Wrote About, and How, in 1994 and 2015

In the analytics that follow, sections of review text were marked in terms of what the critic was focusing on, and how the critic wrote about it. Briefly recapping, the markup system is:

*Topics (what the critic talks about): the production overall; positioning; the writing; the plot; the lead actor, the support actors, and the ensemble of dancers; meaning; and ecotheatrical meaning.

How critics wrote about the above topics was categorized as follows:

*Responses: empathy, affirmation and objection.

*Response levels: objective (factual content), artistic, and sensory.

I treated each paragraph in reviews as a unit of commentary, and began by identifying what each paragraph was most focusing on. Having identified the focus of each paragraph, I identified words, phrases, sentences or sometimes the entire paragraph in question in each review that seemed to me capture how the critic was writing, as defined above. Marked sections of text could then be expressed as a percentage of word-count, of the review or the cohort, depending on the aim of the analysis. In the paragraphs below I run through the thought process that determined what was encoded how, for empathy, affirmation and objection.⁴⁹⁰

Reading Between the Lines: Creative Description in Reviews

In the analysis that follows of the 1994 and 2015 reviews of *The Skriker*, empathy as identified in the reviews analysed here might typically take one or more of the following forms: a discussion or description of what is driving the lead protagonist's inner feelings; a discussion or description of the challenge facing the acting company; discussion and interpretation of a key theme; an approving imaginative short-hand description of either of these; writing that creatively mimics, echoes or plays with the language of the play; or agreement with one or more of the goals of the production. Thus, Coveney looks beyond the surface when he refers to the 'competitive relationship' between Josie and Lily. Taylor delves into the Skriker's psychological make-up when he says: 'all these impostures seem to be fuelled by the same devouring need to feed off people and yet to manifest an alien's misapprehensions as to what makes someone likeable.' Allfree contextualizes Peake's performance against her 2014 Manchester Royal Exchange Theatre Hamlet (also directed by Frankcom) and observes: 'You might even argue Churchill presents the tougher challenge [...].' Frequently, language in the reviews echoes the language

⁴⁹⁰ Please see the Appendix to Chapter Seven on pp. 273-277 for a closer look at the encoding process applied in this chapter.

of the play in both years: Coveney coins an eye-catching alliterative phrase to describe the language that also echoes the quirky language of the play with 'Joycean poetic pun-speak', while Clapp harnesses several ideas to capture Peake's physical appearance: 'crop-haired, grey-clad prophetess', and Allfree describes Skriker as a 'chameleon-like demon' and her language as (as cited above) a 'careening mishmash'. In 2015 several critics discuss the environmental dimension of the play in a way that suggests empathy with the theme: for Billington the 2015 production presents 'a vision of climate catastrophe we can all understand'. Clapp describes climate change as 'an environmental tragedy that here looks like moral rupture, psychic disaster writ large', and goes on to weave together feminism and environmentalism: 'The few males are [...] part of a disordered landscape in which animation means mutation'.⁴⁹¹

In Chapter Six, I discussed the problem of potentially reading too much into simple comments, and seeing ecotheatricality when it may not be there. The reverse can also apply, especially in the context of intertextual references, which can add layers of meaning for those who recognise the reference. Clapp, for example, briefly mentions the music: 'Antony Hegarty (of Antony and the Johnsons)'. The reference to Hegarty could be read as ecological considering Hegarty's profile: in February 2015, Yoko Ono and Hegarty released a new version of 'I love you Earth' on Ono's eighty-second birthday.⁴⁹² In the analysis below I did not mark such ecological subtext in either year because of the risk of adding unintended meaning, or exaggerating the warmth of the response. The effect of this approach should be that empathy and ecomeaning may be understated in the analysis below in a consistent manner for both years, and I see this as preferable to overstatement.

Under the heading of affirmation, the production might be deemed to be worth going to see, but a strong affirmation may position the production as great: theatre history in the making. This could apply to the entire production; the writing; the acting; or an aspect of the production such as design, sound or movement. In 2015 there are many examples of affirmation: Billington talks about 'the magnetic Peake', and 'a magnificent Royal Exchange Production for the Manchester

⁴⁹¹ Allfree, 2015; Billington, 2015; Coveney, 1994; Clapp, 2015; Taylor, 1994.

⁴⁹² Ben Kaye, 'Yoko Ono Celebrates 82nd Birthday with Antony Hegarty Duet "I love you Earth, Listen"' (Consequences of Sound, 2015), 18th February
www.consequenceofsound.net/2015/02/yoko-ono-celebrates-82nd-birthday-with-antony-hegarty-duet-i-love-you-earth-listen/.

International Festival'. Clapp describes the Skriker as 'one of the primary figures of modern theatre', Sarah Frankcom's production as 'explosive' and the play as 'extraordinarily prescient'. At times, I also marked references to literary works and other productions as forms of affirmation. In 1994, Coveney was reminded of 'Peter Brook's famous *Dream*', and Billington compared Churchill's approach in drawing on fairy-tale to 'Shakespeare, the Brothers Grimm and J. M. Barrie before her'. In Spencer's 1994 review, when he compares the language to 'James Joyce on LSD', I marked the sentence in which this appears as an objection, and the reference itself as the opposite – affirmation – to capture what seem to be mixed feelings about the production in the form of a grudging admiration.

The flip side of affirmation in this analysis is objection, where the critic takes issue with aspects of the production or, sometimes, the entire production. The idea that there might be more creative interpretation in reviews for productions critics like and actively engage with is potentially offset by the possibility of creatively framed objections. Sometimes, humour, sarcasm or mockery are applied. Gore-Langton, the only critic in *Theatre Record* to write negatively on the 2015 production of *The Skriker*, is a good example. He likened the tone of the production to the exaggeratedly gloomy comportment of Private James Fraser (undertaker in his fictional civilian life) in the television sitcom *Dad's Army*, declaring in a lugubrious Scottish accent: 'We're doomed'. Spencer regularly used similar tactics in 1994: he admired Hunter's performance as the Skriker, for instance, and neatly injected damning comments about the writing into an affirmatory sentence about her acting: 'One's admiration for Miss Hunter, who has learnt page after page of this gibberish [...] is intense'. Elsewhere he couches seemingly factual pieces of information in such a way as to make the performance seem meaningless or incoherent: 'the Spriggan [...] spends the whole evening on stilts'. In the context of this analysis interpreting double-edged material presents a challenge, and I was careful to be as even-handed as possible in textual marking. The important point, as these examples suggest, is to capture ambiguity in reviews, when creatively framed objections contain elements of affirmation at the same time. The following from Taylor, writing about the 1994 production, is a particularly good example. He described the Skriker as a 'monstrous spider':

spout[ing] a long bewildering monologue in which the train of thought careers along in a madly associative James-Joyce-meets-Professor-Stanley-Unwin fashion. A sentence like “Bloody bones in the dark dark dark we all go into the dark cupboard love all” jumps track from English faery to Eliot's *East Coker* to childhood terror to cliché to tennis score.

In my analysis, I marked the opening line in the above quotation as an ‘objection’ because of the use of words such as ‘spout’ and ‘bewildering’; but I marked the quirky mix of James Joyce, Professor Stanley Unwin, T. S. Eliot (‘dark dark dark’) and tennis scores as an artistic-level response to the language, setting up an affirmatory comment about Hunter in the next sentence. To be consistent with the principle of avoiding exaggeration (in both years) I did not account for the possibility that the short quotation ‘dark dark dark’ from T. S. Eliot’s poem *East Coker* cited by Taylor⁴⁹³ could readily be described as an ecopoetic reference, because I do not know if this was also how it had struck him.

Sensory, Artistic, and Factual Content in Reviews

Many of the words and phrases cited above under the heading of ‘empathy’ also suggest a sensory level response. Such writing is not a straight objective factual description of what is happening. It conveys (and perhaps sometimes betrays) an emotional response. Taylor, for instance, discusses Hunter as follows in 1994:

There’s certain wizardry in the range of identities this actress, with her tough little frame and throaty voice, assumes: from pushy American tourist to derelict old crone; from male psychotic to a sugary pink fairy on wobbly points who emerges from the innards of a sofa. The brilliance is in the unwavering psychological consistency that the performance achieves, so that all these impostures seem to be fueled by the same devouring need to feed off people [...].⁴⁹⁴

This paragraph as a whole is working primarily at an artistic level, but a sensory level appreciation of Hunter’s performance is woven through it in words such as ‘tough’, ‘throaty’, ‘derelict’, ‘sugary’, ‘wobbly points’, and ‘innards’. In 2015, Clapp described the dancers as ‘writh[ing] in ecstatic dance’, and said of the Skriker in a phrase that captures the impossible extremes of Peake’s performance: ‘She slams

⁴⁹³ In *Four Quartets*, T. S. Eliot’s ‘East Coker’, Part III, opens as follows: ‘O dark dark dark. They all go into the dark, [...] The captains, merchant bankers, eminent men of letters....’. (Faber & Faber, 1944), loc. 255.

⁴⁹⁴ Taylor, 1994, p. 95.

and slides and swarms'. Jays wrote of climate change 'feed[ing] on our bones', of the natural world being 'fracked to death', and of Skriker as a 'malevolent reminder of how nature may turn on us at any minute'. Many of the terms marked out as sensory in this analysis were found in association with empathy, affirmation and objection, and, where relevant, terms were marked as artistic- and sensory-level responses at the same time. This is consistent with the complexity suggested by the diagram of Sauter's system of production and reception, above.

In responses at an artistic level the critic is often seeking to describe why the production came across as it did. (In contrast, sensory-level responses are more about the embodied response experienced by the critic.) Examples include Billington's 1994 description of the Skriker's first spidery appearance, cited above. Clapp described the ensemble of actors: 'One [...] may be partly a horse, another has a giant ear sprouting from the top of his head like a satellite dish'. At one level of interpretation the satellite dish simile serves to communicate the impact of successful design at an artistic level. However, Clapp's comment also suggests a response at Sauter's symbolic level: satellite dishes evoke the idea of energy systems thus also climate change; satellite dishes chime with the parallel idea of communication systems running through the human and fairy worlds (e.g. ears, telepathy, and electronics running through the television scene discussed above). As the analysis below will show, critics tended to focus more heavily on artistic- rather than sensory-level responses in their reviews, in both productions. Considering the artistry in the play as a piece of writing ten years in the making, this is not at all surprising. It is also an encouraging result in suggesting that the methodology is identifying patterns that make sense.

Factual material in reviews furnishes information about the production itself, its history, individuals involved in the production, physical aspects of the production such as the layout of the stage or the geographic location of the production, or what happens on stage. The expectation before undertaking this analysis was that critics would spend more time on literal description if less emotionally absorbed in the production. This expectation was not confirmed, in the sense that factual information seemed to take up a similar proportion of word count in both years. This may be because a certain amount of factual information is structural to theatre reviews. Factual statements are quite often apparent in the context of the activity

described above as 'positioning', and can serve to set the scene for the critic's overall response whether they are emotionally engaged or not. Billington, for instance, saw the play differently in 1994 and 2015 thus, when he says 'Plays change with time' in 2015 he is not just stating a fact but, as discussed above, priming the reader aware of his earlier review for a change in view. Clapp's 2015 review is shot through with feminism, hence the significance of the imbalance she describes in factual terms in the cast, more than once: 'Churchill's play is almost entirely female', 'The few males'.

Spectatorial Reactions, Ecodata and Analytical Efficacy

Spectatorial reactions are the acid test of theatrical and ecotheatrical efficacy, but evidence with respect to reception is hard to come by, especially for productions that took place two decades ago. The analysis in this chapter takes advantage of the fact that *Theatre Record* collects and publishes reviews drawn from leading newspapers every two weeks. The January 15-28 1994 edition includes eighteen reviews published in fifteen newspapers.⁴⁹⁵ The 2-15 July 2015 edition contains seven reviews published in seven newspapers.⁴⁹⁶ In total, this body of text amounts to 10,869 words.⁴⁹⁷ The word-count for newspapers that published a review only in 1994 is 3,406 (thirty-one percent of the total). The word-count for newspapers that published in both years is 7,463, unevenly divided between 1994 (4,682 words or forty-three percent of the total) and 2015 (2781 words or twenty-six percent of the total). The cohort selected for analysis focused on newspapers that published on *The Skriker* in both 1994 and 2015, partly so that the balance of newspaper cultures in each cohort might be similar.

In an ideal world, the entire body of almost eleven thousand words would be encoded. However, the empirical purpose of subjecting the entire body of text to analysis would normally be to increase the chances of approaching the average audience response, statistically speaking. As this work is dealing with a segment of the audience rather than a representation of a typical audience, it is unlikely that this

⁴⁹⁵ *Daily Express*; *Daily Telegraph*; *Evening Standard*; *Financial Times*; *Guardian*; *Independent*; *Jewish Chronicle*; *Mail on Sunday*; *Observer*; *Sunday Express*; *Sunday Telegraph*; *Sunday Times*; *The Times*; *Time Out*; and *What's On*.

⁴⁹⁶ *Daily Telegraph*; *Guardian*; *Independent*; *Mail on Sunday*; *Observer*; *Sunday Times* and *The Times*.

⁴⁹⁷ *Theatre Record*, *Openings 15-28 January 1994*, *The Skriker* (Cottesloe), 27 January – 26 April 1994, XIV (02), 93-98; and *Theatre Record*, *Openings 2-15 July 2005*, *The Skriker* (Manchester International Festival), 4 July – 1 August 2015, XXXV (14), 724-725.

effect can be achieved by analysing all the text. Moreover, the time-intensity of this work suggested that it would be more efficient to work on a proof of concept basis – working on a subset of material rather than attempting the entire body of text.

Table 7.01: Database of The Skriker Reviews in Summary

Segment	Word Count	Share of Total	Number of Reviews	Female Reviewers	Avge Word Count
1994 only	3,406	31%	9	1	378
1994 (both years)	3,440	32%	8	3	430
2015 (both years)	2,563	24%	6	2	427
Outlier in 1994 (Sunday Times) ⁴⁹⁸	1,242	11%	1	Na	1,242
Sunday Times in 2015	218	2%	1	Na	218
Total	10,869	100%	25	6	435

Primary Data Source: Theatre Record

The selection of which reviews to analyse was therefore shaped by the key consideration: to achieve the best possible balance between the two years in terms of the publishing newspapers.⁴⁹⁹ The analysis below focuses on the cohort of fifteen reviews tabulated below, and not on making comparisons between individual reviews or critics. Putting this in another way, the unit of analysis is the production, not the critic.

⁴⁹⁸ Peter of the *Sunday Times* wrote his 1994 1,242-word review as a quirky, long-winded conversation between the reader and the critic. This made it difficult to compare with other reviews, and risked unbalancing numbers in this small database.

⁴⁹⁹ Reviews were selected in such a way as to match newspapers between years, as far as possible, to try and balance out potential stylistic differences. The rule was relaxed when two reviewers published in 1994, where both are included. The 218 word 2015 *Sunday Times* review was included but its 1994 1,242-word counterpart excluded as the outlier discussed above, also for reasons of balance.

Table 7.02: Reviews Selected for Encoding in The Skriker Case Study

Word Count	Critic Name, 1994	Newspaper	Critic Name, 2015	Word Count
534	Charles Spencer	<i>Daily Telegraph</i>	Claire Allfree	467
491	Michael Billington	<i>Guardian</i>	Michael Billington	527
423	Paul Taylor	<i>Independent</i>	Paul Valley	251
344	Judith Mackrell	<i>Independent</i>		
281	Louise Doughty	<i>Mail on Sunday</i>	Robert Gore-Langton	156
243	Jan Parry	<i>Observer</i>	Susannah Clapp	751
447	Michael Coveney	<i>Observer</i>		
	Outlier - Excluded	<i>Sunday Times</i>	David Jays	217
670	Benedict Nightingale	<i>The Times</i>	Dominic Maxwell	411
3433	Total Word Count			2780

Source: Compiled from Theatre Record

Ecodata: What Did Critics Write About?

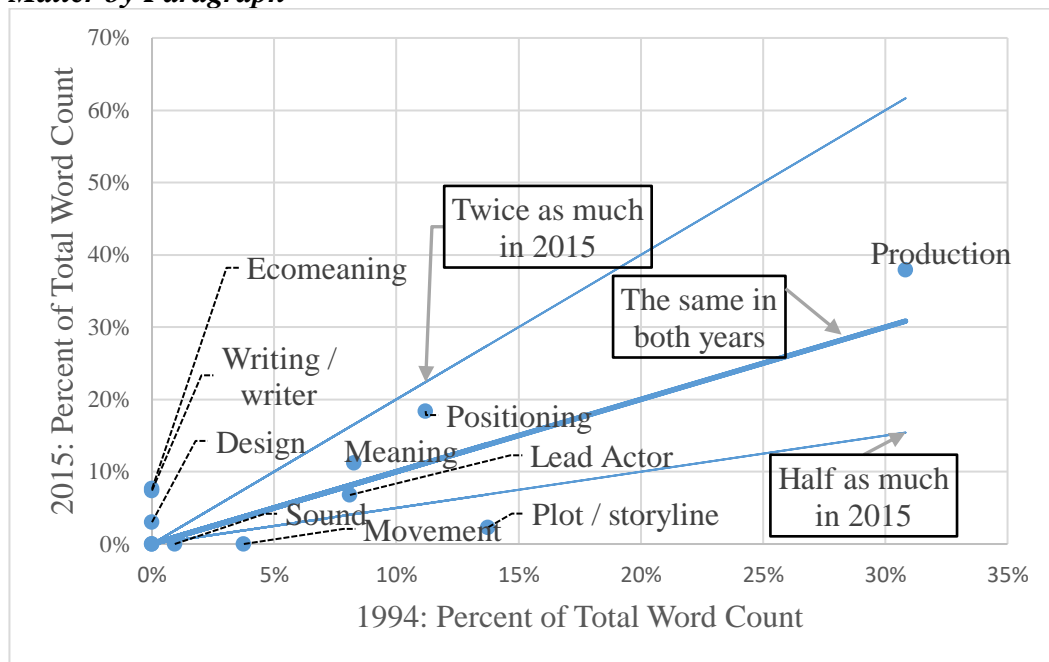
The approach taken in the next stage of this analysis is to begin by presenting some data visually to make the point about changing patterns.⁵⁰⁰ This is done in Figure 7.04 by plotting 1994 data on the X axis and 2015 data on the Y axis, but without going so far as to interpret the resulting scatter-plot as a regression.⁵⁰¹ Figure 7.04 looks at what critics wrote about in the reviews, comparing word counts expressed as a percentage of words in all of that year's encoded reviews in aggregate as listed in Table 7.02. In this chart, the unit of analysis within each cohort is the review paragraph. Each point on the chart represents one of the activities discussed under 'what' critics wrote about as their main subject-matter, paragraph by paragraph.⁵⁰²

⁵⁰⁰ I have applied a similar visualisation technique as an analyst in ESG and Sustainability at UBS. My UBS note entitled 'Seeking Sustainability Ideas Not Under the Lamp-post', 19th August 2013, compared a single-year cross-section of two World Economic Forum (WEF) data-sets. Permission was obtained from UBS to apply this similar but not identical visualisation technique in this PhD.

⁵⁰¹ These charts may recall regression analysis, but this is not their purpose. Rather, this is an efficient way of visualising similarities and differences. The 45° line in bold, and other gradients, are added to make it easier to read the significance or otherwise of changes.

⁵⁰² The reason for looking at paragraphs as analytical units is described in the Appendix to Chapter Seven. In any given paragraph, critics discuss a number of topics – usually one or perhaps two main topics, with reference to subsidiary topics to support an argument. Established encoding systems such as TEI follow a hierarchical structure to capture such layered content, and I have mimicked this idea in my analysis.

Figure 7.04: What Critics Focused on in Reviews of *The Skriker*: Main Subject-Matter by Paragraph



Source: Based on raw data Compiled from Theatre Record

The forty-five-degree line drawn from the origin is where data points fall when the same proportion of the text, in aggregate, is spent on a particular aspect of the review, such as the production overall or its positioning, in both years.

The analysis in Figure 7.04 finds that critics in both years focused mainly on the production and (to a lesser extent) its positioning, with an increase in both in 2015. Another point of note is that critics spent more time discussing meaning and less time on the plot and movement in 2015, suggesting that the play was better understood in the revival. They also spent time on ecomeaning: in 1994, this concept did not appear at all as the leading subject matter of any paragraph, even though it did appear within paragraphs, as was evident in individual reviews discussed above.

I also looked for further granularity on what critics focused on by considering what supporting material critics drew on to support their views within paragraphs – for example, when talking about the positioning of the show, did critics focus on the lead actor, or other aspects of the production? My analysis suggests that both reviewer cohorts, 1994 and 2015, referred most frequently to the lead actor and to the writer in paragraph subsections, confirming that the Skriker, her language, and

the respective performances of Hunter and Peake were important in shaping the impact both productions had upon critics and spectators. Notwithstanding this similarity, I found it interesting to note that supporting references to Peake in paragraph subsections on other topics were significantly higher in 2015. I interpret this as tending to confirm the effective functioning of the production as an ecosystem in which the lead actress was fully embedded and her impact magnified by and within the overall system.⁵⁰³ Other aspects of the production the cohort of critics drew upon included the plotline (fewer references in 2015) and the production overall (more references in 2015). There was also a small but important change: the increased amount of time critics spent on ecomeaning.

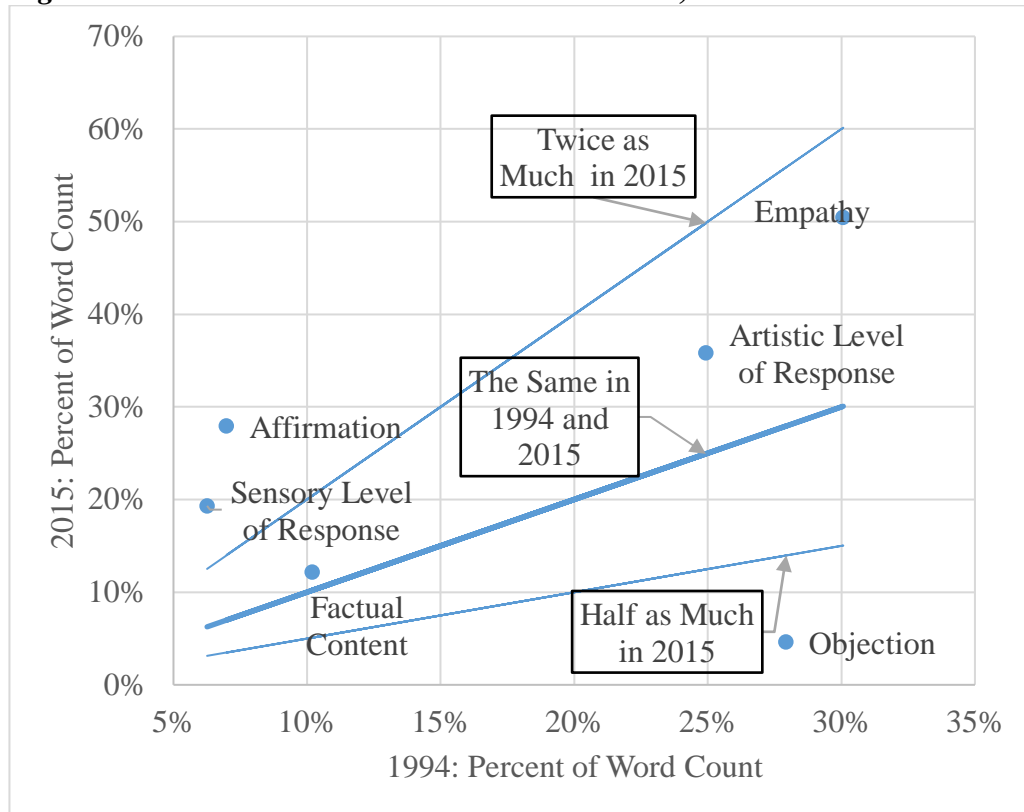
EcoData: How Did Critics Write About the Production?

The next stage in the analysis looks at how reviewers wrote about the productions in the two years in question, in terms of the simple analytical system described above. When the 1994 and 2015 reviews are compared as a body in terms of how they were written, applying the same visualization technique as in Figure 7.04 (p. 251), this evidence suggests that these critics, as a group, reacted differently to the two productions (Figure 7.05). Just under thirty percent of total word-count is devoted to affirmation in 2015 against seven percent in 1994, suggesting a more positive response to the play in 2015. Empathy was high in both productions, almost doubling from thirty percent to fifty percent of word-count in 2015.⁵⁰⁴ Objections were far fewer in number. In terms of Sauter's levels of response to a theatrical event, the artistic level dominated in both productions, and was higher in 2015, rising from twenty-five percent to thirty-six percent. Sensory level responses rose significantly in 2015, from six percent to nineteen percent. Literal or factual content was about a tenth of total word-count in both years. Although critics did not expand the time spent on this in 1994 when less engaged in the production, I note that the proportion of reviews telling readers about the plot was lower in 2015, as Figure 7.04 (p. 251) shows. It seems that, for this play, critics focussed on the plot (rather than other factual information) when less engaged in the production.

⁵⁰³ This is the opposite of what is happening in the less coherent productions of *Coriolanus* in Chapter Four, where the lead player mattered more than the production ecosystem.

⁵⁰⁴ These numbers may look high at first sight. This is because of layered meanings in critical review text. I note that the absolute numbers are not the main point of interest. What matters in this analysis is the change. Please refer to the detailed explanation in the Appendix to Chapter Seven.

Figure 7.05: How Critics Wrote About *The Skriker*, 2015 Vs. 1994



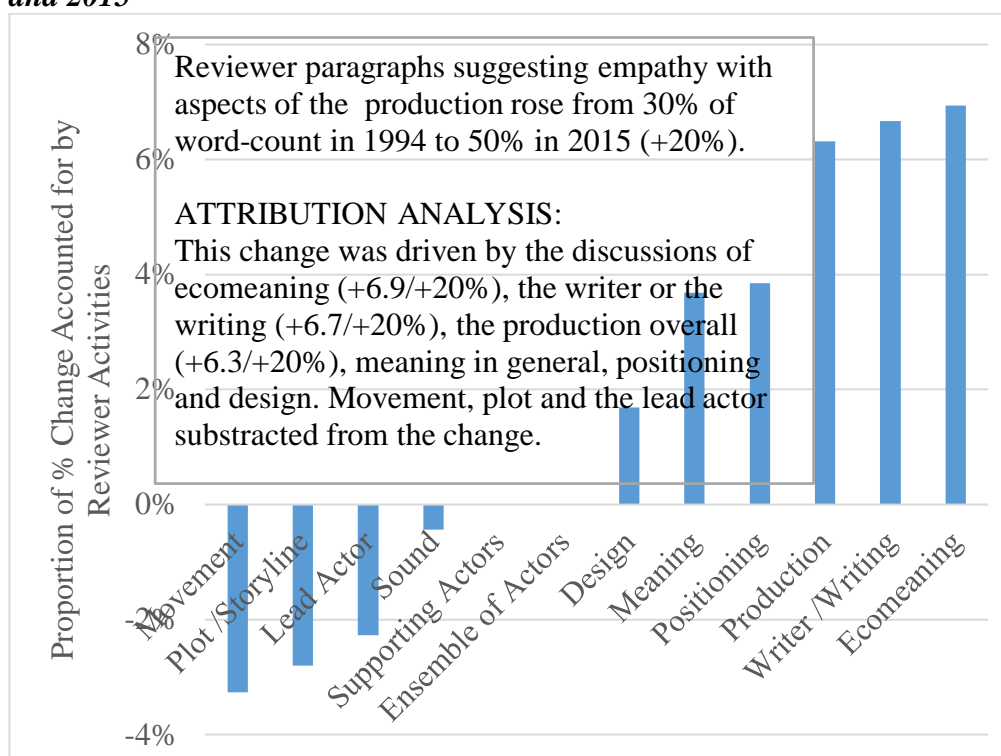
Source: Based on raw data Compiled from Theatre Record

Attribution Analysis: What Drove Changed Responses?

In the next stage of the analysis, I examined what had driven the change in the critical response to the two productions by looking at what was most discussed in the context of changes in the proportion of responses (empathy, affirmation and objection), and response levels (artistic, sensory and objective (factual)). This is an important step in the analysis, with respect to the numbers cited above for ecomeaning within paragraphs. The rise in empathy shown in Figure 7.05 turned out to be most often found in the context of review content relating to ecomeaning, the writer or the writing, the production, its positioning, meaning in general and design. The big difference between the sets (cuboidal box versus circles of hell) does not come through as having had a major impact. Empathy was less often

identified in the context of discussions of movement, the plot, and the lead actor, to the left of Figure 7.06.⁵⁰⁵

Figure 7.06: Attribution Analysis – Change in Level of Empathy between 1994 and 2015



Source: Based on raw data Compiled from Theatre Record

Moving to the next prominent point in Figure 7.05 (p. 253), the artistic response level, the same attribution analysis (not plotted here) finds the increase in this response is mostly accounted for by discussions of the production overall. At the other end of the scale there was a fall-off in discussions of the plot. This seems to suggest a greater engagement with the production in 2015 on the part of reviewers as spectators. Moving to the third prominent point in Figure 7.05 (p. 253), the rise in affirmation as a proportion of text seems to have been driven by discussions of positioning, meaning, and the production overall. Finally, the fourth prominent point in Figure 7.05 (p. 253) is the sensory level of response. Attribution analysis suggests

⁵⁰⁵ In Figure 7.06, +6.9/+20% in the text-box means that about a third of the rise in empathy as measured in this exercise was found in the context of text that discussed ecological meaning. Note: this does not mean ecomeaning word count rose by 7%. It refers to the difference between the share of ecomeaning in each cohort.

that the production overall as well as design were important in producing the increase in sensory-level responses in the reviews. Peake's performance seems to have played a marginal role in the change in the play's reception, relative to the production as a whole. Considering the tone of review commentary on Peake's performance, this is unlikely to suggest a less successful performance from Peake relative to Hunter. Rather, this reconfirms that the success of the production was less dependent on the leading actor, and more a function of the production team as a whole. I note that for several 1994 critics, Hunter was indeed seen as the redeeming feature of the production.

Finally, as noted above, text was not marked for responses at Sauter's 'symbolic' level because of the problem that everything can be read as symbolic on stage. However, the increased positioning of meaning and ecomeaning as a discussion point in the above suggests that these critics were actively reading the play at a symbolic level precisely because the production in 2015 worked so well in evoking responses at Sauter's artistic and sensory levels. Moreover, as discussed above (and pace Sauter) it does not seem to have been a much stronger performance of the lead actor that brought about the change in response, strong as both were in absolute terms. Something else must explain this change. This analysis suggests that the acting team (lead actor, supporting actors and ensemble of dancers) functioned better as an ecosystem (as defined in the Introduction), and, as a result, the production worked better ecoeffectively than its 1994 counterpart. (My own experience of one of the 2015 performances suggests this to have been a top-notch peak theatrical experience working on many levels). Earlier paragraphs in this chapter suggest explanations as likely to include the shift in the cultural context that made ecotheatrical statements permissible on stage and in reviews. The 1994 production was an identifiable part of the nascent climate change movement, but perhaps only for those tuned in to the movement, such as the feminists referred to in discussion by Susan Bennett. In 2015, *The Skriker* was part of the visible pre-COP21 movement of 2015 as well as the broader climate change movement in the cultural context.

The Importance of Clapp's Review as an Indicator of Cultural Change

Having turned text into numbers and charts, I now want to return to the review I saw as the most important of all the 2015 reviews in *Theatre Record*. This is Clapp's

review, which stands out because it makes a connection between two movements – one environmental, the other social. She positions her review by opening with a feminist provocation, made even more mischievous by the ambiguous reference to ‘she’:

She would not be welcome as a member of the Garrick club. She has no penis, no establishment position and is not big on banter. Nevertheless, the Skriker is one of the primary figures of modern theatre.

By the end of the second sentence it becomes more likely that ‘she’ is the Skriker,⁵⁰⁶ rather than Peake, or Churchill, or indeed Clapp herself, considering the established status of all in their respective fields. Yet, precisely because they are at the top of their respective fields, all three could still be described in the words applied to the Skriker in the third sentence.

Amusing as this is to read, by the end of Clapp’s review it becomes clear that the opening sentence is more than a light-hearted provocation. It expresses her identification with ‘exciting partnership’ of Peake and Frankcom. It represents Clapp herself, joining the female voices in the production (and as one of a small number of female critics bucking the male-dominated establishment) to ‘express a skewed world’ – the ‘moral rupture’ that is climate change, ‘psychic disaster writ large’.⁵⁰⁷ Clapp’s review captures the joint advancement of two movements from the earlier production to the later one – climate change and feminism – at a stroke. For Clapp, *The Skriker* seems to have been a theatrical peak experience in the sense described by Eversmann, in all senses of the word, to judge by the rich texture of her own descriptions. To add to those already cited:

She is a tattered, winking Gloriana, a sleek, androgynous seducer in a tie, and a winsome elf with a teeny voice and gauzy wings.

Overall, Clapp’s review evokes a system of spiraling feedback loops each reinforcing the other in production, reception and in the broader cultural context. As a review, it can be described as an ecoeffective piece of writing.

⁵⁰⁶ Churchill herself referred to the Skriker as ‘it’, see p. 214.

⁵⁰⁷ The first two footnotes in the thesis list the creative teams side by side in an early hint at the shift in gender balance.

Chapter Seven: A Story of Cultural Change

Returning to the research questions driving this chapter, the textual analysis applied to the 1994 and 2015 bodies of text in critical reviews of *The Skriker* suggests that critics not only more often noticed the ecological themes in 2015 than they had in 1994, but also that they were more engaged in talking about them. Secondly, critics showed significantly more pleasure and empathy, and fewer objections, in response to the later production. Moreover, levels of response, at sensory and artistic (and, on the oblique, symbolic levels) were also markedly different in response to the two productions overall, suggesting a much richer spectatorial experience for the second cohort. Thirdly, the evidence presented here suggests that ecological issues connected to emotional reactions more frequently in 2015 than in 1994, and this was because of the combined effects of Sarah Frankcom's production (which seems to have been set up to behave more like an ecosystem than its earlier counterpart), as well as its connectivity to a cultural context in which climate change was an active topic in which many were now emotionally engaged.

Data driven approaches can be risky in the sense that they can give a false impression of change. Data and text are fundamentally different, because meaning can be ambiguous, complex and many-layered. The structure of the encoding system described above is designed with intent, the dual aim being to make an objective textual analysis possible, and to identify ecotheatrical effects. The question is whether the analytical approach itself is any more effective than the sections of the chapter in which I directly discuss text, and my sense, having come to the end of the chapter, is that the two approaches complement each other, jointly throwing light on research questions. The system of textual analysis created in this chapter is an ecosystem describing a series of other ecosystems, thus it is a construction informed by the ideas at work in the thesis. Notwithstanding the care taken in my implementation – repeating the mark-up process several times, checking what I had done many times, understating embedded ecological readings in inter-textual references – I must acknowledge the risk that the virtuous circle at work in the 2015 production of *The Skriker* could be an artefact of the analytical ecosystem I have created in this chapter. Thus, this analytical approach risks overstating the extent to which the 2015 production was ecoeffective. Running against this is the ecoanthropocentric possibility that one ecosystem (the spectatorial response

embedded in reviews) is mirroring another (the shapeshifting ecosystem of the production), and, in my analysis I am mirroring both systems, thereby describing a high level of ecoefficacy. All three are artefacts, created in the spirit of the ecological approach, in which circularity and obliquity are givens, applied in this thesis overall.

Overall, the work in this chapter suggests that a major cultural change has been under way over the past two decades with respect to the positioning of climate change in the cultural context. Whereas, in 1994, those involved in theatrical events were unwilling to discuss the issue directly, in 2015 there is no such hesitation. Such a change does not necessarily mean that energy systems, transport systems, buildings, the structure of work or high resource consumerism will also change considering the likely power of those feedback loops in the overall system. However, it is unlikely incumbent systems will change without shifts in mind-set such as the one described in this work. *The Skriker* was ‘extraordinarily prescient’ as an ecoanthropocentric play, and its 2015 revival was a ‘primary’ (thus ecoeffective) piece of ecotheatre.

Chapter Eight. In my Beginning is my End; in my End is my Beginning

Ecotheatre, defined as theatre that changes the way we think about our relationship with the environment, can be described as an ecosystem composed of a collection of ecologies and biology embedded in a layered system of other ecosystems, some of which will be extra-theatrical, others intra-theatrical, as suggested by the structure of the Diamond Model. Ecotheatre is likely to be at its most ecoeffective when cultural divides are challenged, or – to use one of the key terms in this thesis – occluded. Such “‘blurr[ed] and confound[ed]”” cultural divides can include those listed by Chaudhuri, citing Morton: ‘between species, between the living and the non-living, between organism and environment’.⁵⁰⁸ However, in the ecoanthropocentric perspective in this thesis, the organism is the environment and the environment is the organism, thus to think in terms of blurring boundaries of this kind is (ironically) to reintroduce them.

Ecoanthropocentrism and the Presence of the Environment as Shapeshifter

When any given theatrical production is ecotheatrical with intent, the ‘first challenge’ need not necessarily be (as Chaudhuri and Enelow suggested in 2014) ‘to come up with a kind of queer ecological figure: a “character”, or several characters, who would voice and embody an alternative way of interacting with non-human bodies and landscapes’. For, as I argue throughout this thesis, the environment as a force ‘not a flower child, earth mother, or animal whisperer, but a disturbing, disruptive presence, which genuinely challenges our values’,⁵⁰⁹ is already frequently present in the form of the environmental shapeshifter on the stage. By way of illustration, this concluding chapter begins with a photograph (Figure 8.01, below) of a deeply disturbing scene in Stephens’ UK climate change play *Wastwater*.⁵¹⁰ In the scene in the picture of the April 2011 Royal Court Theatre production, Sian (played by Amanda Hale) has asked Jonathan (Angus Wright) to put his hand out on a hard surface.⁵¹¹ The knuckles of her right hand are festooned with a pair of handcuffs

⁵⁰⁸ Morton, ‘Guest Column, Queer Ecology’, in *PMLA*, 125 (2) (2010), 273-282 (275).

⁵⁰⁹ Chaudhuri and Shonni Enelow, ‘Theorizing Ecocide: The Theatre of Eco-Cruelty’, in *Research Theatre, Climate Change, and the Ecocide Project* (New York: Palgrave Macmillan, 2014), p. 36.

⁵¹⁰ For the source of this photograph see Billington, ‘*Wastwater* – Review’, *Guardian*, 6th April 2011 <www.theguardian.com/stage/2011/apr/06/wastwater-review>.

⁵¹¹ Stephens, p. 49.

worn as knuckle-dusters. The tension mounts as she conversationally describes to him why she thinks he wants to go ahead with the transaction, citing the number of years he and his wife tried for a baby and the cost of their fertility treatment. She chats about the time she went back to live with her ‘lovely’ foster mother Frieda after her divorce, in the beautiful village surrounded by parks and reservoirs that might be wiped out by Heathrow’s third runway. From a spectatorial point of view this is ominously confusing. How can someone be understanding and threaten violence at the same time? How can they act in a way that could be benign, allowing Jonathan to become a father while rescuing his charge from an awful existence; or in a way that could be the opposite of benign, leaving a kidnapped, abused child to an uncertain existence in an unstable environment? This could not be more ‘disturbing’ or ‘disruptive’, to cite Chaudhuri and Enelow.

Figure 8.01: ‘So, I understand how difficult it can be. Keep your hand still.’

[*Guardian* Review Photograph not shown here for copyright reasons. It can still be seen on the *Guardian* website at the link footnoted above.]

Source: Guardian Review Photograph

Billington’s response to *Wastwater* is reminiscent of his 1994 response to *The Skriker* in also suggesting confusion:

He offers us snapshots of individual cruelties that, for all the suggestion of larger forces at work, don't add up to a social critique. We may be disturbed; but what are we meant to do about it?

For Billington, *Wastwater* did not seem to have been ecotheatrically effective, in the sense that the environmental message of the play did not come across, on the evidence of his review. However, he has identified some of the raw materials that add up to an ecocritical message. At the opening of his review he describes an 'airport environs' and a lake both full of 'sinister shadows', and the 'larger forces' he mentions above recall ecosystems. Thus, in another sense, the environmental shapeshifter is present even if not consciously recognised. Whether Billington was aware of the shapeshifter or not, his response can be described as an example of evidence of ecoefficacy as defined in the Introduction, recalling that shapeshifters often work on the oblique. From an ecocritical perspective, 'larger forces at work' in the ecotheatrical ecosystem in this production are palpably present in the many auditory, visual and verbal signals pointing the way to fossil fuel-driven feedback loops. These include the networks created by travel, the internet and telephone systems, and these variously facilitate, interrupt, precipitate, disrupt, or magnify human ecologies.

The key point about *Wastwater* is that the play itself is an ecosystem, depicting ecosystems in all their ambiguity. Individual acts of kindness or cruelty are small feedback loops (or shapeshifters) in a larger whole. How such acts were intended is irrelevant because knock-on effects arising from them can carry on in the same direction, or (in the presence of perverse consequences) in the opposite direction. Together, in this play, they amount to a widespread dynamic of runaway damage, propelled forwards by systemic transmission mechanisms. In *Wastwater*, fossil fuels drive the ecosystem in which environmental damage is social damage and social damage is environmental damage. In *The Skriker*, resource-hungry social systems destroy the wider system of ecologies without distinguishing between the human and the non-human, the organic and the rest. In both plays, the nature/culture divide running through human behaviour blinds human beings to the consequences of resource profligacy. In both plays, the circularity of ecosystems and ecologies means that environmental damage wrought by human beings also does damage to human beings themselves, directly and indirectly. In both plays, spectators are

confronted by a confusing presence who is ‘not a flower child, earth mother, or animal whisperer, but a disturbing, disruptive presence’. Sian is the Skriker and the Skriker is Sian. Both could be described as ‘weirdo killers’, as the Skriker was in the context of a 1996 US production by a *New York Times* theatre critic.⁵¹² Either of them could have said: ‘We’re connected. All of us. Just when you think we can’t possibly be, you realise that we are. It’s horrible.’⁵¹³

Just as the question in the title of my thesis borrows a word from *The Skriker*, the title of my last thesis chapter comes full circle in referring to the response of a 1994 critic to the first production of Churchill’s play. Taylor of the *Independent* talked about the reference to T. S. Eliot’s ecopoem *East Coker* (‘dark dark dark’).⁵¹⁴ Looking back at 1994 from the perspective of the 2015 production, this could be interpreted as a subconscious eco-reaction to a production of the play in which the environment as a shapeshifter seemed to struggle to make itself heard, but had nevertheless perhaps managed to work on the 1994 critical subconscious of Taylor. In 2015, in contrast, few people may have noticed the ecopoetic reference to *East Coker* in the milliseconds it takes the Skriker to say ‘dark dark dark’. Nevertheless, by 2015, the evidence discussed in Chapter Seven suggests that this intentionally eco-theatrical play seemed to have done what effective eco-theatrical events should do, in one sense at least. The change in its reception between 1994 and 2015 suggests that it had become a self-reinforcing feedback loop, in which relatively eco-anthropocentric spectators might have found Eversmann’s peak theatrical experience knowingly embedded in the ecosystem it performs within an ecosystem of other ecosystems.

Bringing Ecological Spectacles Back to Earth: The Potential Irrelevance of Intent

The very existence of plays such as *The Skriker* and *Wastwater*, in which the nature/culture divide is present, alongside the environment as a shapeshifter, is sufficient to suggest that the environment and its specifically ecological meanings are shapeshifters on stage. They are present with intent, on the basis that this was the aim of the playwrights and production teams involved in the theatrical events

⁵¹² Matt Wolf. ‘Theater; A Damaged World in Which Nature is a Weirdo Killer’, *New York Times*, 5th May 1996.

⁵¹³ Stephens, 2011, pp. 62-3.

⁵¹⁴ Churchill, 1994, p. 10 and Taylor, 1994.

discussed above. However, the fact that they were knowingly present (and in both cases presented on the oblique so that the spectator had to be fully engaged to see them) does not mean they will necessarily also be present in reception.

The reverse also holds, namely that plays and productions (as well as analytical models such as the Diamond Model) that do not set out to be ecotheatrical can readily contain the environment (perhaps alongside the nature/culture divide) as a shapeshifter, because of the ambiguity embedded in ecosystems. In this thesis, this was the case with *Coriolanus*, explored in Chapter Four. Borrowing from the ecological perspective at work in Figure 1.09a (p. 47) and 1.09b (p. 48), consistent productions might belong on the left-hand side of the adapted IPCC Sea Ice diagram.⁵¹⁵ Taken as a single loop, without the offsetting loop on the right, it is a runaway feedback loop. Thus, in the right conditions, it is a runaway warming system, a market bubble in alternative energy, or a metaphorical runaway warming system on stage.⁵¹⁶ As an ecotheatrical feedback loop, thematic consistency is likely to enhance emotional connections to dearth (following Frijda's emotional processes as described in Chapter Three). Stronger emotional connections enhance the possibility of Eversmann's 'peak theatrical experience'. This in turn is likely to enhance audience perceptions of thematic consistency, and so on in a self-reinforcing process. However, as the text under Figures 1.09a and 1.09b (pp. 47-8) suggests, the self-reinforcing spiral can work in the opposite way. For example: if the production did not connect to something people cared about in their daily lives, this might reduce the chance of a peak theatrical experience, which would reduce the perception of consistency, and so on, leading to a cooling spiral, and a cooling audience. In this case, even productions that can be described as dearth-aware with intent will fail in their aim of being ecotheatrically effective.

The same, but in reverse, could hypothetically apply to thematically inconsistent productions. If something about the production – for example,

⁵¹⁵ Intergovernmental Panel on Climate Change (IPCC), 'Section 7.5.2, Sea Ice', in *Third Assessment Report, Working Group I: The Scientific Basis* (2001), IPCC website, Figure 7.6 <<https://www.ipcc.ch/ipccreports/tar/index.htm#456>>. Select the full report in *The Scientific Basis* and see p. 456.

⁵¹⁶ I recap on the substitution discussed on pp. 47-8: for Sea Ice substitute Fossil Fuel Energy Culture; for Open Ocean, Energy R&D; for Evaporation, Energy Technology Ideas; for Low Clouds, Energy Economics; for the Albedo effect, the Incumbent Energy Infrastructure; and for Surface Temperature, Energy Innovation.

enjoyment of the production as a spectacle, or a specific connection to something happening to be prominent in the media thus a live concern in people's daily lives – happened to produce a peak theatrical experience, an inconsistent production could be ecotheatrically effective without intent, notwithstanding my own belief that peak theatrical experiences are more likely in the context of coherent productions. A successful theatrical peak experience (in other words, a bubble as defined by Nordhaus, and as described in the paraphrasing of his words on innovation in the Introduction to Part Two) is the key determinant of ecotheatrical efficacy, or its opposite (Quadrant One in Figure 1.07, p. 44). In short, there seems to be no way accurately to measure ecotheatrical efficacy because of potential ambiguities running through ecosystems in general.

The similarities between runaway warming systems as described by climate scientists (and Nordhaus for economics), and the basic workings of effective theatrical performances, raise three specific measurement challenges. First, how is the risk of unintended consequences likely to be embedded in runaway systems to be accounted for? Secondly, when ecotheatrical efficacy is identifiably achieved, does attribution fairly belong to the specific performance in question, or to a different focal point in the broader context, or both? Thirdly, and relatedly, when the reverse is the case and the performance is deemed to be ecotheatrically ineffective, how should this be accounted for in the measurement system? In the next paragraph, I briefly take each question in turn, in a seeming game of snakes and ladders.

As ecosystem science explains, runaway systems are intrinsically damaging because of their tendency to overshoot, and oscillating systems better for the broader ecosystem because they help to maintain a balance between its different elements. Nevertheless, momentum in positive (destabilising) feedback loops (such as radical theatrical campaigns) can be constructive. Runaway systems (theoretically bad news) may be needed to unbalance the persistent (thus stable but destabilising) culture of resource over-usage. However, on the downside, such campaigns could also inadvertently perpetuate a culture of runaway behaviour, thereby inadvertently reaffirming the incumbent system of resource usage they seek to overturn (see the production of *Greenland* described on pp. 124-6). Moreover, in the broader socio-environmental ecosystem, indirectly connected feedback loops (e.g. feminism and environmentalism in the context of *The Skriker*) might reinforce each other in

producing such twists and turns. Alternatively, negative (stabilising) feedback loops (e.g. influential critics lacking an ecoanthropocentric perspective) might have the perverse effect of stabilising the status quo thereby giving support to the (prevailing) fundamentally unstable runaway system. If any given theatrical production should succeed in producing Eversmann's theatrical bubble it could reasonably be described as effective theatre, but what that could mean for ecotheatrical efficacy is undefined.

Is Ecotheatrical Efficacy a Matter of Shifting the Cultural Centre of Gravity?

Several examples stand out in this thesis as leveraging the strategy I describe in Chapters One and Six (the HandleBards' case study) as putting what matters at the core of the ecosystem immediately under the control of those involved. *The Skriker* and *Wastwater* put ecological ideas at the core of the play text and the production, as described above. Kershaw's Meadow Meanders are a striking example of work that leverages the natural environment in all possible dimensions – literal, physical, metaphorical and phenomenological – by putting an iconic ecosystem map (fleeting drawn within a living ecosystem) at the core, thereby driving an entire ecosystem of mind maps in the participants, some of whom reperformed their experiences in written and verbal text. Kershaw's strategy also separated itself from incumbent infrastructures by requiring no energy other than unprocessed human energy in performance. Sadly, the ecosystem drawn by hundreds of pairs of feet including my own on Tocil Fields, Warwick University, is now (2016) occluded by building site fencing in a spectacular example of one system overwhelming another. However, all the feedback loops it created have perhaps not been obliterated. First, because the Meander remains etched in the memory of those who took part, and in the archival material represented in Kershaw's article; secondly, because when one Meadow Meander ends several more can begin.⁵¹⁷

In the Chapter Six case study, the most powerful effect of the HandleBards' approach was to put a physical object – the bicycle – at the core of theatre operations. In this way, the behaviour of the acting troupe and its relationship with its audiences were transformed by the self-imposed environmental constraints. The bicycles also had the effect of separating the troupe from conventional theatre infrastructures to a significant extent. However, just as the presence of the Meadow

⁵¹⁷ Kershaw, 2015 [2013], p. 127.

Meander did not always have the effect of occluding adverse feedback loops such as the steady advance of concrete structures on Warwick University's campus, HandleBards audiences were often unable to change their transport habits when travelling to a show. The bicycles were not at the core of audience transport systems, thus a reinforcing feedback loop in the broader ecosystem was missing: audiences had no choice but to travel to performances by car. The HandleBards' performances were ecotheatrically very effective in producing constructively positive emotional feedback loops for the environment. In real terms, the result is potentially the oscillation at work in Figures 1.09a and 1.09b (pp. 47-8), feedback loops working together so that one offsets the other. Thus, there could be little or no immediate change in spectatorial behaviour on the way into and home from the performance because of the infrastructures people depend on to get to the performances. Applying the same ecological terminology, the high carbon profile of the only transport system available to spectators blocked the potential for the HandleBards bicycle-driven contextual theatricality to connect to behavioural change for many spectators, at least in the context of theatre-going.⁵¹⁸

In the meantime, the ecodata considered in Chapter Six suggests that the environment was the unmentioned open secret in the troupe's productions. The fact that survey respondents tended not to mention the bicycles, and objected to overt environmental questions, suggests that ecotheatrical efficacy for the HandleBards was at its greatest when it could not be directly measured on the basis of instrumentality (audience behaviour after the event) or phenomenological responses. The Chapter Six ecodata does however suggest that a self-reinforcing phenomenological process was at work in the HandleBards' performances in the fusion of production and reception being, in turn, 'performed by' theatrical and planetary ecologies. The analysis of Chapter Six thus neither proves nor disproves ecotheatrical efficacy in conventional terms. It leaves unanswered questions and a possible research direction to follow in the context of the circular qualitative research approach known as 'grounded theory' (see Chapter One). However, when circularity and obliquity are accepted as an inevitable part of ecosystems and

⁵¹⁸ The effect of this is shown in Figure A1.02, where I have redrawn a chart of 'Carbon Footprint, London Theatres' so that it incorporates the share of audience travel in the whole.

feedback loops, such evidence might be interpreted as indicative of ecotheatrical efficacy, albeit without certainty.

Theatrical Campaigns and Ecotheatrical Efficacy

The complexity of ecotheatrical events such as those that thematise ecologies (*Lungs*, *The Skriker*, and *Wastwater*), and those that connect physically to ecologies (*Lungs* performed in Paines Plough Roundabout, Meadow Meanders and HandleBards) means that the extent to which they are ecotheatrically effective in changing the way people think about the environment is difficult to capture. Measurement, like science, is, as Bateson observed, ‘limited in its ability to collect the outward and visible signs of whatever may be the truth’.⁵¹⁹ One context in which ecotheatrical efficacy might be easier to identify is when theatre is used to campaign about the environment. The aim of the group BP or Not BP was to interrupt a specific feedback loop in the connection between arts funding and oil, through their ad hoc theatrical performances. The narrowest measure of success is whether the group succeeded in interrupting that dynamic. The best answer at the time of writing is that the group has only partially succeeded. An ecosystemic perspective on their success or otherwise is however more revealing. Figure 1.09a and 1.09b (pp. 47-8) suggest several possibilities for the campaign similarly conceived as a system of feedback loops.

Should spectators enter into the spirit of the performances of BP or Not BP and show their appreciation of the message, removing the logo from their programmes, this success might hypothetically reinforce the campaign through an embodied action. This in turn might act as a catalyst for another feedback loop in the form of increased interest in the pool of spectators. However, the greater prominence of the campaign could potentially also lead to hypothetical neutralization tactics by the organisations targeted by the campaign. If successful, these might potentially offset the effect of the BP or Not BP campaign causing an oscillation back towards the old system. One possibility is thus that the ecotheatrical efficacy of BP or Not BP’s campaign might be intermittent, catching the eye but not carrying people away – an oscillation rather than a runaway warming system. On the other hand, the film *Deepwater Horizon*, directed by Peter Berg, arrived in UK cinemas at

⁵¹⁹ Bateson, 2002, p. 27.

the end of September 2016. The perspective of the incident presented in the film is less relevant to this argument than the high-profile recurrence of the story six years on from the event, reinforcing a potentially negative message about arts and oil funding in the playing culture node of the Diamond Model simply by reminding people about it. The film itself is a potential transmission loop with the potential to support the resistance to oil funding set moving by BP or Not BP. Overall, the jury is out on ecotheatrical efficacy or otherwise, thus (contrary to expectations) even measuring the success of the relatively targeted, instrumental efforts of organisations such as BP or Not BP is unlikely to be an easy matter considering the invisibility and ambiguity of some of the responses they may have set moving.

The Ecotheatrical Efficacy Trap

This chapter thus once again turns full circle in returning to the dilemma discussed at the opening – ecotheatrical efficacy as a series of circular impasses. The impasse turns out to be resolved as follows: whether the environment as a shapeshifter is visible or not turns out to be potentially irrelevant to the question of ecoefficacy. The several examples of ecotheatre without intent suggest that the environment as a shapeshifter very often speaks for itself, with and without words. Thus, insisting on its visibility (somewhere in the fusion of production and reception) could have the effect of rendering ecotheatre less effective. Morton potentially explains this by suggesting that a consequence of foregrounding the environment is that it ‘stops being the environment’,⁵²⁰ however the ecoanthropocentric view at work in this these suggests an opposite possibility. Foregrounding the environment potentially separates it from the nature/culture fusion in which it is embedded thereby turning it into mere scenery and re-establishing the nature/culture divide. Thus, ecotheatre with intent could turn out to be its opposite, albeit (ironically) without this intention.

The HandleBards spectators who objected to environmental questions on their feedback forms can be interpreted as making this very point. *The Skriker*, as a play that performs the environment without foregrounding it, thus could perhaps have been described as more ecotheatrically effective in 1994 than it was in 2015, even though the discussion at the opening of this chapter suggests the opposite. If this were the case, the interpretation of the ecodata gathered for Chapter Seven

⁵²⁰ Morton, 2007, p. 1.

would be precisely wrong, notwithstanding the ecological lens through which the evaluation system was constructed and the circularity potentially running through the framework. The ecotheatrical efficacy trap lies in the insistence upon evidence, because the measurement of ecotheatrical efficacy, by foregrounding the environment, also re-establishes the nature/culture divide. To foreground ecology is to take it out of its natural habitat and kill it dead. Bateson saw this problem, decades ago:

How is the world of logic, which eschews circular argument, related to a world in which circular chains of causation are the rule rather than the exception? [...] [L]ogic and quantity turn out to be inappropriate devices for describing organisms and their interactions and internal organization.⁵²¹

On the other hand, putting the environment as a shapeshifter at the core can be tremendously effective in putting the environmental shapeshifter on stage. The YouTube performance of *Waiting for Godot* on radioactive land that put the actors but (intentionally) not the spectators in harm's way (Chapter Five) is an intermedia ecosystem acting upon the phenomenological sensitivities of spectators seemingly physically absent, but whose virtual spectatorship was channelled by physical means in an interaction of energy, matter and ideas. Here, the ecosystem includes virtual networks (the internet) working alongside the synapses of the brain (memory) to deliver a performance that connects the environment as a shapeshifter to the distant spectator. However, even this view may be undermined elsewhere. The energy-intensity of theatrical ecosystems connected by the internet is beyond the scope of this thesis, but must be acknowledged as a feedback loop potentially pushing in good and bad directions for the environment. Donna Haraway provides a useful term – the 'god trick' – for the potentially adverse feedback loop that is introduced by the ability of the internet to interconnect and yet also disconnect.⁵²² The power of the internet to exacerbate the nature/culture divide in several ways is all too clear. However, other feedback loops running in the opposite direction can come from the

⁵²¹ Bateson, 2002, pp. 18-19.

⁵²² Haraway, 'Situated Knowledges', *Feminist Studies*, 14 (3) (1988, 575-599 (587)). Moore uses the same term in a condemnation of capitalism: the 'God-trick was [...] the co-production of Nature as something to be mapped, quantified and, above all, controlled in ways that eased the endless accumulation of capital,' loc. 1431. Moore capitalises the G in God, Haraway does not.

same place. *Waiting for Godot* in Fukushima could be imagined through the soles of the feet by YouTube spectators, in a reversal of the internet's 'god trick'.

As suggested at the outset of the thesis, insights with respect to the state of the nature/culture divide can only be meaningful if seen through ecological spectacles, and this perspective must include an acceptance of ambiguity and not knowing. Ecosystems do not function according to the intentions of specific shapeshifters within them, but rather as a consequence of the joint actions of all involved. In the absence of the nature/culture divide, intent in the instrumental sense of the term is irrelevant. What really matters is the quality of the lived experience of the theatrical event.

Theatrical Events Research as a Lived Experience

This thesis opened with a lived experience of the phenomenological essence of ecological rupture, ecopoetically performed, in the 2015 production of *The Skriker*. Similar experiences appear at intervals throughout the thesis. Examples include the Arcola *Waiting for Godot*, the Young Vic's *After Miss Julie*, unexpected effects experienced in the NT's *Nut*, Baz Kershaw's *Meadow Meanders*, *Lungs* performed in the Roundabout and *Wastwater*. Phenomenological ideas run through the Diamond Model and, although neither Sauter nor Tullock describe their qualitative research as phenomenological, the context in which it was conceptualized suggests that phenomenological ideas are there too – after all, they are both seeking to describe reception as a lived experience from the perspective of the spectator. I did not discover the qualitative research field known as phenomenological research until I had completed a substantial part of the analysis of the ecodata work in Chapters Six and Seven, but now identify it as having an excellent conceptual fit with ecotheatre and theatre ecocriticism:

So, phenomenology does not offer us the possibility of effective theory with which we can now explain and/or control the world, but rather it offers us the possibility of plausible insights that bring us in more direct contact with the world.⁵²³

⁵²³ Max van Manen, *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*, 2nd edn. (The Athlone Press, 1997; Abingdon: Routledge, 2016), loc. 400.

With hindsight, a typical procedure for phenomenological research described by John W. Creswell bears unsurprising similarities to the methodology followed in Chapters Six and Seven (where some of the ideas driving textual post coding in the HandleBards Chapter are borrowed and expanded upon in Chapter Seven).⁵²⁴ Overlaps between the methodology applied in Chapter Seven and Creswell's methodology are set out in Table 8.01. An important difference between the two approaches is that I did not have a direct research relationship with the reviewers.

Table 8.01: How Ecotheatrical Feedback Loops Connect to the Field of Phenomenological Research

Procedure	Relevance
Identify the phenomenon of interest.	The response of spectators (as represented by critics) to the phenomenon of ecotheatricality – the environment as a shapeshifter.
Ask broad general questions.	Identify text in which reviewers seek to convey the essence of their experience of the relevant theatrical event to readers. (Passages of creative description are relevant to phenomenological experiences.)
Collect qualitative data (for example verbal or textual responses to the phenomenon).	In this case, <i>Theatre Record</i> collected textual responses.
Highlight significant statements; develop clusters of meaning.	This corresponds to encoding, and to the design of the encoding structure. In this case, the empirical experience of Sauter was drawn on to help shape the structure.
Bracket researcher's experience – identify researcher's personal experiences with the phenomenon so they can be (at least partly) set aside.	Notwithstanding my efforts to be as objective as possible in handling the data, it is likely I did not fully bracket my experiences in one respects: my own response to the 2015 performance as a phenomenon. My response to the reviews as phenomena themselves was bracketed by dint of being a different kind of experience.
Write up or describe the essence of the phenomenon.	In this case, I sought to represent the essence of the phenomenon of critical reactions in the form of charts as well as verbal descriptions.

Source as above, footnoted; and author (right hand column)

⁵²⁴ Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (Thousand Oaks CA: Sage Publications, Inc., 2013), pp. 81-83.

Nevertheless, an active one-way relationship is in force. Critics who spend time on creative description can be described as seeking to convey the essence of a phenomenological experience. Reading critics' reviews, I cannot directly access that essence. As I read passages of creative interpretation in which critics reperform their reactions, I am recording a new phenomenological experience (the reading itself) which should, at least to some extent, mirror the experience the critic is hoping to convey. As I return to each critic's material having read material by others reacting to the same event, in the iterative research process described above, my understanding of what they are seeking to communicate (and perhaps ideas they are communicating unawares) increases.

The key point about phenomenological research is that it follows a circular process. It is consistent with the interconnected system of four definitions in the Introduction, in the sense that this research approach is a shapeshifter in its own right. It corresponds very well as an approach to the idea of mind maps and meanders discussed in Chapter One. Phenomenological research as a theory supports the idea of ecologically-informed research processes as a potentially effective form of ecocriticism; thus, a potentially promising area for further research is potentially identified.

If phenomenological research provides a theory for theatre ecocriticism, the question of what is to be measured in the context of ecotheatrical efficacy remains. An answer is potentially suggested by the opening chapters of this thesis, where much was made of the importance of the alignments and misalignments produced by planetary ecologies in the context of feedback loops, individually and in combination. Such alignments and misalignments are an inevitable feature of ecosystems. The possibility that there might be fewer adverse instances of them should the nature/culture divide be less systemically embedded in human society is present in several of the ecotheatrical examples discussed in the course of this thesis. In the presence of the divide, spectators (and theatre critics) may not realise the environment is present as a shapeshifter even when it is hitting them between the eyes (as Billington did not say of *Wastwater* in 2011). In the presence of the divide, the potential for changes in thinking arising from effective ecotheatre (as in the case of the HandleBards productions and the Meadow Meanders) can be described as occluded in the sense that connections to the feedback loops that would enable

human relationships with the resources they rely on to change are also failing to connect. As was discovered in Chapter Six, research surveys that foreground the environment thereby changing it into something different may be unintentionally reintroducing the nature/culture divide where the bicycles had succeeded in crossing it. Identifying nature/culture fusion and nature/culture divides and categorizing them as environmentally constructive or otherwise is unlikely to be clear or easy. Everyone would not agree, for instance, with my view that in *Wastwater* the nature/culture fusion is a given, and because of that Sian is the Skriker and the Skriker is Sian. Both are in themselves a fusion of ecologies embedded in other ecologies, ancient and damaged.

Three Questions, Three Answers

The answer to the first of three questions discussed in Chapter One in the context of the environmental crisis – whether human beings are in denial about it – is that denial can be identified as a problem, but it is unlikely to be the whole truth. An alternative explanation for slow responses to an increasingly urgent state of affairs potentially lies in the ecological perspective taken throughout the thesis. Action taken in one area of a larger ecosystem might simply not be powerful enough to over-ride the accumulation of other feedback loops at work in the system. The puzzle is how a better alignment might be achieved. On the evidence of this thesis, some human beings are at work in the ecosystem of social systems they inhabit, seeking the means to move to a different relationship with the environment.

Therefore, the environment as a shapeshifting shapeshifter is not only regularly present on stage with intent, but also turns out to be potentially ubiquitous when ecoanthropocentrically co-created (in a system of reception as production and production as reception), as illustrated in the examples discussed in the course of this thesis. Sometimes, the obliquity and circularity typical of nature in culture and culture in nature mean that the shapeshifting environment is not immediately visible, but invisibility does not denote absence. The environment on stage is at its most effective when it is an open secret, unrecorded and unmeasured thus not forcibly foregrounded but running through the fusion of nature and culture that is embedded in any such performance. In ecotheatre in an all-round sense this would describe every dimension of the theatrical event. In such conditions, the living ecosystem of the live theatrical event will do the rest, as the shapeshifter shapes the shapeshifter in

a runaway spiral of ecotheatricality. The third question – the quality of the cultural shift needed to bring about a more responsible and responsive relationship with our environment – holds the key. If the nature/culture divide could be obliterated from human culture by means of a shift towards a more ecoanthropocentric way of life, the environment would be known to be ever-present as a shapeshifter on stage and in all walks of life, not as an entity, but as an ecosystem of ecosystems ad infinitum.

Appendices

Appendix to Chapter One

Figure A1.01: Arcola Theatre's Potential Trajectory towards Zero Carbon Emissions Goal

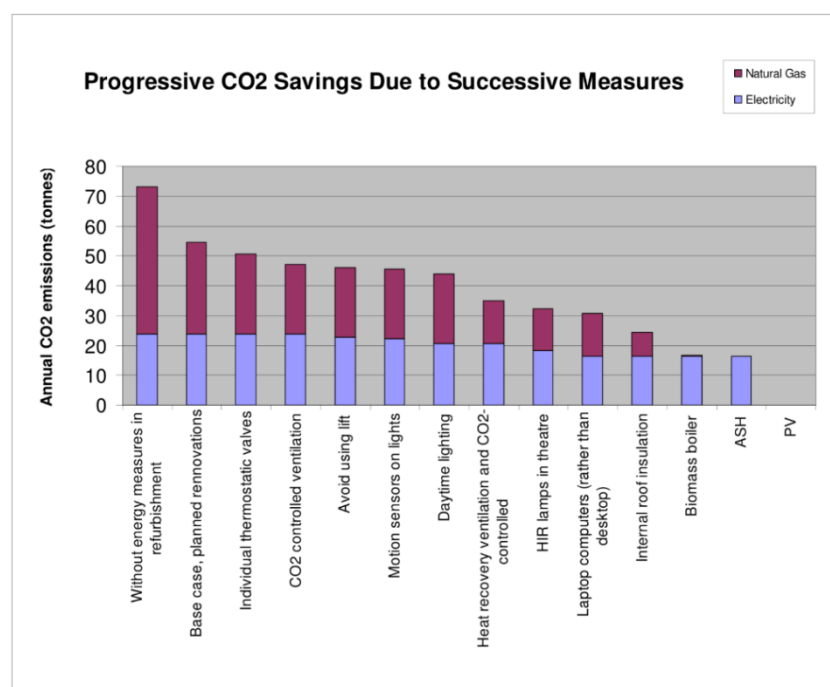
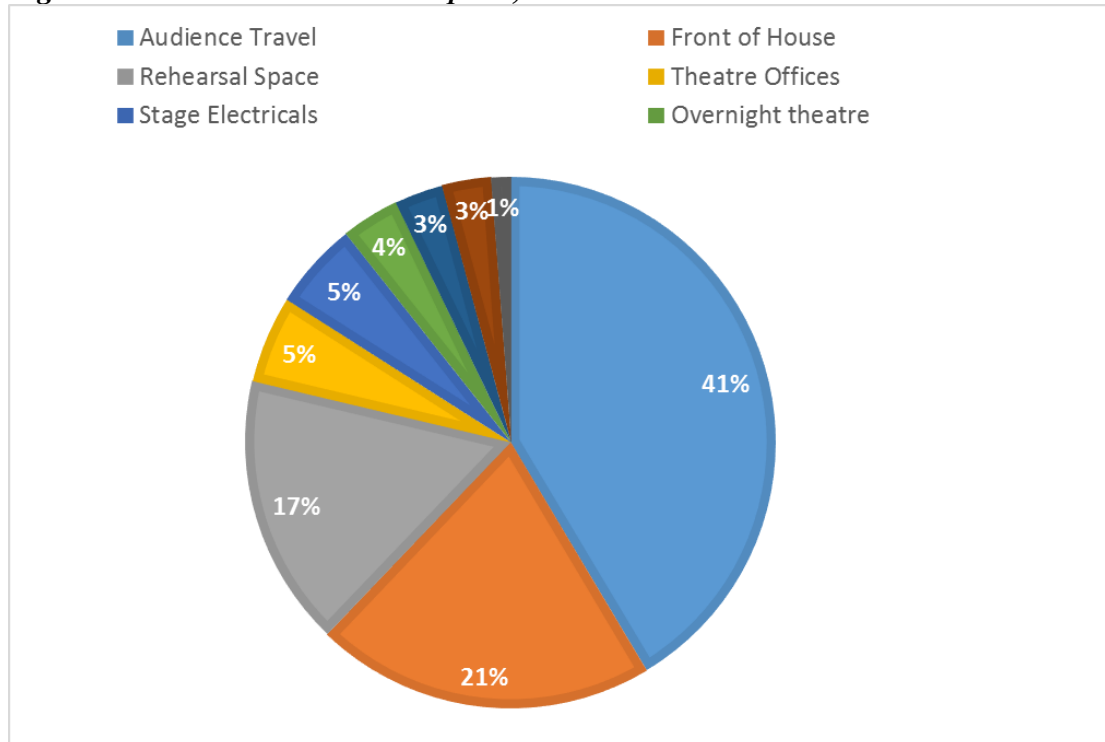


Figure 1 – Illustration of path to CO₂ neutrality

Source: Element Energy Limited, Arcola Theatre Energy Feasibility Study, 12th April 2007, p. 7 <www.arcolaenergy.com>

Explanation: The left-hand column is 'Without energy measures in refurbishment'; the second from the left is 'Base case, planned renovations'. The sequence describes incremental energy-management innovations leading towards neutrality in CO₂: individual thermostatic valves; CO₂-detector-controlled ventilation; avoidance of using the lift; motion sensors on lights; daytime lighting; heat recovery ventilation also controlled by CO₂ detector; halogen infra-red lamps in theatre; laptop computers (rather than desktop); internal roof insulation; active solar heating panels; and photovoltaics. I note that some of these measures will have other environmental consequences. Photovoltaic (solar) energy microgeneration depends on equipment made by means of energy-intensive manufacturing processes.

Figure A1.02: Total Carbon Footprint, London Theatres



Source: Mayor of London, Green Theatre, September 2008, p. 5

The pie-chart is redrawn to incorporate audience travel, based on numbers in the text.

Appendices to Chapter Six

HandleBards' Feedback Form Data Notes

I counted sixty-four performances on the HandleBards Summer Tour of 2015: thirty-eight performances of *A Midsummer Night's Dream* (60%) and twenty-three of *Hamlet* (34%). There were also four 'secret shows' at which neither of the touring plays was performed during the Edinburgh Festival in August (6% of the shows on the tour). Manual feedback forms were collected from spectators at eleven performances, eight batches in relation to *A Midsummer Night's Dream* and three batches with respect to *Hamlet*. Electronic feedback forms were collected after the event by the HandleBards, who emailed spectators willing to be contacted. A list of performances and how many forms of which type were collected is shown in Table A6.01.

Table A6.01: List of Performances, the HandleBards' Summer Tour

No.	Venue, Date, Play and Performance Time	Audience Survey Data Collected
1	River Hill Gardens, Sevenoaks – 24 th June. <i>A Midsummer Night's Dream</i> , 5.30pm.	Electronic forms: 15
2	Warninglid Grange, Haywards Heath – 25 th June. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 2
3	Capron House (Cowdray Estate), Midhurst – 26 th June. <i>Hamlet</i> , 7pm.	Electronic forms: 9
4	The Sustainability Centre, Petersfield – 27 th June. <i>A Midsummer Night's Dream</i> , 7pm.	Attended in person. Manual forms: 26 Electronic forms: 5
5	Salisbury Arts Centre, Salisbury – 30 th June. <i>Hamlet</i> , 7pm.	Electronic forms: 2
6	Larmer Tree Gardens, Salisbury – 1 st July. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 12
7	The Courts Garden, Holt – 2nd July. <i>Hamlet</i> , 7pm	Electronic forms: 1
8	The Courts Garden, Holt – 3rd July. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 5
9	Farms for City Children, Arlingham – 5th July. <i>A Midsummer Night's Dream</i> , 5pm.	Electronic forms: 16
10	Painswick Rococo Garden, Painswick – 6th July. <i>Hamlet</i> , 6.30pm.	Electronic forms: 4
11	Old Swan & Minster Mill, Witney – 7th July. <i>A Midsummer Night's Dream</i> , 7.30pm.	Electronic forms: 3
12	Stowe School, Buckingham – 8th July. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 1
13	Ascott Estate Cricket Pavillion, Leighton Buzzard – 9th July. <i>A Midsummer Night's Dream</i> , 7.30pm.	Electronic forms: 11
14	Elstow Abbey, Elstow – 10th July. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 1

15	Cottesbrooke Hall, Northampton – 11th July. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 20
16	Leicester Guildhall, Leicester – 12th July. <i>Hamlet</i> , 7.30pm.	Electronic forms: 1
17	Nottingham Castle, Nottingham – 14th July. <i>Hamlet</i> , 7.30pm.	Electronic forms: 1
18	Newark Castle and Gardens, Newark – 15th July. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 3
19	Newstead Abbey, Newstead – 16th July. <i>A Midsummer Night's Dream</i> , 6pm	Electronic forms: 3
20	Recycle Bikes, Sheffield – 17th July. <i>Hamlet</i> , 7pm.	Electronic forms: 10
21	Standedge Tunnel – date unknown. <i>Hamlet</i> , time unknown.	Electronic Forms: 1
22	Sheffield Amphitheatre, Sheffield – 18th July. <i>A Midsummer Night's Dream</i> , 5pm.	Electronic forms: 11
23	Ordsall Hall, Salford – 21st July. <i>A Midsummer Night's Dream</i> , 6pm.	Electronic forms: 3
24	Rufford Old Hall, Ormskirk – 22nd July. <i>A Midsummer Night's Dream</i> , 6pm.	Electronic forms: 8
25	Hoghton Tower, Preston – 23rd July. <i>Hamlet</i> , 7pm.	Electronic forms: 6
26	Hardcastle Crag, Hebden Bridge – 24th July. <i>A Midsummer Night's Dream</i> , 6.30pm	Electronic forms: 1
27	Hardcastle Crag, Hebden Bridge – 25th July. <i>Hamlet</i> , 6.30pm.	Electronic forms: 5
28	Merchant Adventurers' Hall, York – 28th July. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 4
29	Merchant Adventurers' Hall, York – 29th July. <i>Hamlet</i> , 7pm.	Electronic forms: 2
30	Bolton Castle, Leyburn – 31st July. <i>A Midsummer Night's Dream</i> , 7pm.	Manual Forms: 13 Electronic forms: 3
31	Crook Hall, Durham – 2nd August. <i>A Midsummer Night's Dream</i> , 6.30pm	Manual forms: See below.
32	Crook Hall, Durham – 3rd August. <i>A Midsummer Night's Dream</i> , 6.30pm.	Manual forms in total: 51 ⁵²⁵ Electronic forms: 1
33	Crook Hall, Durham – 4th August. <i>Hamlet</i> , 6.30pm.	Manual forms: 0 (but see above). Electronic forms: 0

⁵²⁵ Data note: some of these forms may relate to *Hamlet*. They were delivered in one envelope labelled Crook Hall. The practical question was how to process them in my analysis. Fifty-one forms amount to twelve percent of the *A Midsummer Night's Dream* form-count. Contamination could be anywhere between zero (assuming no *Hamlet* forms were submitted) to perhaps half of the batch, but probably not more because there were two *A Midsummer Night's Dream* shows. I therefore estimate a mislabeling of up to six percent of the *A Midsummer Night's Dream* feedback form cohort when these forms are included in the data set.

34	Guisborough Forest and Walkway – 5th August. <i>A Midsummer Night's Dream</i> , 6.30pm.	Manual forms: 12 Electronic forms: 2
35	Raby Castle, Staindrop – 6th August. <i>A Midsummer Night's Dream</i> , 7pm	Manual forms: 17 Electronic forms: 2
36	The Cycle Hub, Newcastle Upon Tyne – 8th August. <i>A Midsummer Night's Dream</i> , 7pm.	
37	Whalton Manor, Morpeth – 9th August. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 1
38	Felton, Venue Unnamed – 10 th August. <i>A Midsummer Night's Dream</i> . Time not known. ⁵²⁶	Manual forms: 18
39	Ford Castle, 12th August. <i>Hamlet</i> , 7pm.	Electronic forms: 4
40	Bowhill, Selkirk – 13th August. <i>Hamlet</i> , 6.30pm.	Electronic forms: 1
41	Kailzie Gardens, Peebles – 14th August. <i>A Midsummer Night's Dream</i> , 6.30pm	Electronic forms: 2
42	New Lanark Mills, Lanark – 15th August. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 5
43	Edinburgh Fringe – 18th August. Cycle to a SECRET SHOW. Time n/a.	
44	Edinburgh Fringe – 19th August. Cycle to a SECRET SHOW. Time n/a.	
45	Royal Botanic Gardens Edinburgh – 20th August. <i>A Midsummer Night's Dream</i> , 6.45pm.	Electronic forms: 12
46	Royal Botanic Gardens Edinburgh – 21st August. <i>Hamlet</i> , 6.45pm.	Attended in person. Manual forms: 9 Electronic forms (may relate to two shows): 10
47	Royal Botanic Gardens Edinburgh – 22nd August. <i>A Midsummer Night's Dream</i> , 6.45pm.	Attended in person. Manual forms: 33
48	Royal Botanic Gardens Edinburgh – 23rd August. <i>Hamlet</i> , 6.45pm.	Attended in person. Manual forms: 35 Electronic forms: see above.
49	Edinburgh Fringe – 25th August. Cycle to a SECRET SHOW. Time n/a	
50	Edinburgh Fringe – 26th August. Cycle to a SECRET SHOW. Time n/a.	
51	Royal Botanic Gardens Edinburgh – 27th August.	Attended in person. Manual forms: 31

⁵²⁶ Not known because this performance was a late addition to the tour. It was not in the list I had to hand during the project, sourced from the HandleBards' website in the early summer. The forms were unexpectedly handed to me at a late stage by Moss, who had found them in the HandleBards' luggage, labelled 'Felton' and dated 10th August.


	<i>A Midsummer Night's Dream</i> , 6.45pm.	
52	Royal Botanic Gardens Edinburgh – 28th August. <i>Hamlet</i> , 6.45pm.	
53	Royal Botanic Gardens Edinburgh – 29th August. <i>A Midsummer Night's Dream</i> , 6.45pm.	
54	Royal Botanic Gardens Edinburgh – 30th August. <i>Hamlet</i> , 6.45pm.	
55	Cambo Estate, St Andrews – 2nd September. <i>A Midsummer Night's Dream</i> , 7pm.	Electronic forms: 8
56	HM Frigate Unicorn, Dundee – 3rd September. <i>Hamlet</i> , 8pm.	Electronic forms: 1
57	Coupar Angus Town Centre – 4th September. <i>A Midsummer Night's Dream</i> , 7.30pm.	
58	Hatton Castle, Newtyle – 5th September. <i>Hamlet</i> , 6pm.	Electronic forms: 1
59	Hatton Castle, Newtyle – 6th September. <i>A Midsummer Night's Dream</i> , 6pm	
60	The Rookery, Streatham Common, London – 8th September. <i>A Midsummer Night's Dream</i> , 6.30pm.	Electronic forms: 17
61	The Rookery, Streatham Common, London – 9th September. <i>Hamlet</i> , 6.30pm.	Electronic forms: 13
62	The Museum of the Order of St. John, Central London – 10 th September. <i>Hamlet</i> , 7.00pm.	Attended in person. Manual Forms: 25 Electronic forms: 14
63	Chelsea Physic Garden, Central London – 11 th September. <i>A Midsummer Night's Dream</i> .	Electronic forms: 64
64	Chelsea Physic Garden, Central London – 12 th September. <i>Hamlet</i> .	Electronic forms: 40.

Sources: list of shows from the HandleBards website, supplemented by the data the troupe collected electronically.

In summary, the total number of responses collected through manual feedback forms was: *A Midsummer Night's Dream* 201 (74%). *Hamlet* 69 (26%). Total: 270 feedback forms. The total number of responses through electronic feedback forms: *A Midsummer Night's Dream*: 241 (66%). *Hamlet*: 126 (34%). Total: 367 feedback forms. In aggregate, the total number of responses for each play was: *A Midsummer Night's Dream*: 442 (69%); *Hamlet*: 195 (31%). Overall total: 637 feedback forms.⁵²⁷

⁵²⁷ A note on data concentration: In the case of *A Midsummer Night's Dream*, eight shows (just over twenty percent of 38 shows) furnished about fifty-seven percent of the feedback forms (manual plus electronic). The eight shows are: Chelsea Physic Garden, 11th September; Crook Hall, Durham, 2nd and 3rd August; The Royal Botanical Gardens Edinburgh, 22nd and 27th August; Petersfield

Figure A6.01: The HandleBards' Hard Copy Feedback Form – Summer Tour 2015



Thank you for coming to the show today - we'd love to hear your thoughts!

Are you: Male ☐ Female ☐ Prefer not to say ☐

Your age (if you don't mind us asking)?

Under 11 ☐ 12 - 15 ☐ 16 - 19 ☐ 20 - 24 ☐ 25 - 64 ☐ 65+ ☐

Prefer not to say ☐

How did you travel to the performance today? *Circle as appropriate*

Walked Cycled Public transport Lift/car share Car Taxi

Other (please specify) _____

Approximately how far did you travel to come to the show (in miles)?

How did you find out about the show? *Circle as appropriate*

Word of mouth HandleBards flyer/poster Venue flyer HandleBards website

Venue website Other (please specify) _____

How often do you attend live theatre performances?

Never - this was my first time ☐ Not often - once a year ☐

Sometimes - 2 - 5 times a year ☐ Often - at least once a month ☐

Very often - at least once a week ☐

Are you enjoying the show? Yes ☐ No ☐ Not sure ☐

Do you like the performance style of the HandleBards? Yes ☐ No ☐ Not sure ☐

Feel free to say why/what in particular you enjoy/are not enjoying, like or dislike.

Would you like to be added to our mailing list?

If YES, please provide your email address where indicated below. These email addresses will be entered into a draw to win two free tickets and a bottle of champagne at a 2016 HandleBards performance.

(The contact information you provide will be separated from the form to maintain privacy and confidentiality.)

Sustainability Centre, 27th June; Cottesbrook Hall, Northampton, 11th July; and Raby Castle, Staindrop, 6th August. In the case of *Hamlet*, four shows furnished sixty-eight percent of the feedback forms, and The Museum of the Order of St. John, the only indoor performance, was one of them. The four dominant shows without this indoor performance (sixty-nine percent) are: The Chelsea Physic Garden, 12th September; The Royal Botanic Gardens, Edinburgh, 23rd Aug and 21st Aug; The Rookery, Streatham Common, London, 9th September.

Is today's production changing your view of the play?

Yes ☐ No ☐ Not sure ☐ Not applicable, have not seen it before ☐

Feel free to say in what way it's changing your view of the play.

Do you think today's performance can be described as "eco-theatre"?

Yes, strongly agree ☐ Somewhat agree ☐ Neither agree nor disagree ☐

Somewhat disagree ☐ No, strongly disagree ☐ Not sure what eco-theatre is ☐

Please agree or disagree with the following statements.

1 = Strongly Agree, 3 = Neither Agree nor Disagree, 5 = Strongly Disagree

Environmental and/ or ecological themes and meanings are always visible in this play, no matter who produces or performs it.

1 2 3 4 5

I like the working practices of the HandleBards because they help me see more clearly how the themes in this play are connected to the natural environment.

1 2 3 4 5

I like the working practices of the HandleBards because they make the performance of the play more exciting and enjoyable to watch.

1 2 3 4 5

I like the working practices of the HandleBards because they result in a very low carbon footprint for the production.

1 2 3 4 5

The overall experience of today's show is making me feel closer to the natural environment.


1 2 3 4 5

Feel free to say why/why not if you feel this is not covered in the answers you have given above.

Note: The data gathered in this survey will be used by the HandleBards to understand their audiences better. It may also be discussed, described and cited by Julie Hudson (who is a PhD student at Warwick University) in a research context. Should you be identifiable to us, we will not disclose your identity. When you hand in this form, you are indicating that you have understood and accepted these conditions.

If you have any other comments feel free to let us know by sending us an email at info@peculius.com. We hope to see you again soon!

Figure A6.02: The HandleBards Electronic Feedback Form – Extract, Summer Tour 2015



HandleBards Feedback Survey 2015

5.

42%

The data gathered in this survey, and particularly in the questions below, may be discussed, described and cited in a research context by Julie Hudson, a PhD student at Warwick University. Should you be identifiable to us, we will not disclose your identity. If you do NOT wish your data to be used, please do not complete the questions below.

Did the production change your view of *A Midsummer Night's Dream*?

☐ Yes

☐ No

☐ N/A - I hadn't seen it before

Feel free to comment on your answer

Do you think the performance could be described as "eco-theatre"?

☐ Yes, strongly agree

☐ Somewhat agree

https://www.surveymonkey.com/r/Preview?sm=3qWClx3k_2FI_2F1857gFM86ttai.FuKb686vluAqtzje1f6c_5D27/06/2016, 12:06
Page 1 of 3

- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ No, strongly disagree
- ☐ Not sure what "eco-theatre" is

Feel free to comment on your answer

Please agree or disagree with the following statements:

Environmental and/or ecological themes and meanings are always visible in *A Midsummer Night's Dream*, no matter who produces or performs it.

Strongly agree		Neither agree nor disagree		Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I like the working practices of the HandleBards (eg. few actors in many roles, recoiled and lightweight set and props, environmentally conscious travel, etc.) because they help me see more clearly how the themes in the play are connected to the natural environment

Strongly agree		Neither agree nor disagree		Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I like the working practices of the HandleBards because they make the performance of the play more exciting and enjoyable to watch.

Strongly agree		Neither agree nor disagree		Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I like the working practices of the HandleBards because they result in a very low carbon footprint for the production.

Strongly agree Neither agree nor disagree Strongly disagree

☐ ☐ ☐ ☐ ☐

The overall experience of the show made me feel closer to the natural environment.

Strongly agree Neither agree nor disagree Strongly disagree

☐ ☐ ☐ ☐ ☐

Feel free to comment on your answers

Prev

Next

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Table A6.02: Why Did Spectators See the HandleBards' Productions as Ecotheatre?

Percent of Respondents.	Paper Forms			Electronic Forms		
Questions and Tick-Boxes.	A Midsu mmer Night's Dream	Hamlet	Hamlet Indoors	A Midsum mer Night's Dream	Hamlet	Hamlet Indoors
This performance can be described as ecotheatre - strongly agree.	65	67	42	57	71	57
This performance can be described as ecotheatre - somewhat agree.	17	29	29	21	16	21
Total	83	95	71	79	88	79
STRONGLY AGREE THAT:						
Enviromental and ecological meanings are always visible in this play.	10	12	4	5	2	0
The working practices of the HandleBards help me see the environmental connections.	32	17	17	34	31	14
The working practices of the HandleBards make the play more exciting to watch.	73	74	50	78	82	57
The working practices of the HandleBards result in a low carbon footprint for the production.	55	52	46	53	55	57
The overall experience is making me feel closer to the environment.	37	40	0	33	33	0

Source: HandleBards survey data (all numbers are percentages)

Appendices to Chapter Seven

Table A7.01: List of The Skriker Reviewers in the 1994 Theatre Record Cohort

1994 Reviewers	Newspaper	Date
Billington, Michael	<i>Guardian</i>	29 th January
Christopher, James	<i>Time Out</i>	2 nd February
Coveney, Michael	<i>Observer</i>	30 th January
De Jongh, Nicholas	<i>Evening Standard</i>	28 th January
Doughty, Louise	<i>Mail on Sunday</i>	6 th February
Gross, John	<i>Sunday Telegraph</i>	30 th January
Hirschhorn, Clive	<i>Sunday Express</i>	30 th January
Mackrell, Judith	<i>Independent</i>	29 th January
Nathan, David	<i>Jewish Chronicle</i>	4 th February
Nightingale, Benedict	<i>The Times</i>	29 th January
Parry, Jan	<i>Observer</i>	30 th January
Paton, Maureen	<i>Daily Express</i>	1 st February
Peter, John	<i>Sunday Times</i>	6 th February
Smith, Neil	<i>What's On</i>	2 nd February
Spencer, Charles	<i>Daily Telegraph</i>	31 st January
Rutherford, Malcolm	<i>Financial Times</i>	30 th January
Taylor, Paul	<i>Independent</i>	29 th January
Wardle, Irving	<i>Independent</i>	30 th January

Source: Theatre Record, Openings 15-28 January 1994, 'The Skriker' (Cottesloe), 27th January – 26th April, Vol. XIV (02), 93-98

Table A7.02: List of The Skriker Reviewers in the 2015 Theatre Record Cohort

2015 Reviewers	Newspaper	Date
Allfree, Claire	<i>Daily Telegraph</i>	6 th July
Billington, Michael	<i>Guardian</i>	6 th July
Clapp, Susannah	<i>Observer</i>	12 th July
Gore-Langton, Robert	<i>Mail on Sunday</i>	19 th July
Jays, David	<i>Sunday Times</i>	12 th July
Maxwell, Dominic	<i>The Times</i>	7 th July
Valley, Paul	<i>Independent</i>	8 th July

Source: Theatre Record Openings 2-15 July 2005. 'The Skriker' (Manchester International Festival), 4th July – 1st August, Vol. XXXV (14), 724-725

Textual Marking and Encoding in Brief

The Text Encoding Initiative (TEI) is a consortium engaged in collaboratively developing ‘a standard for text in machine readable form’. The consortium also provides a detailed set of Guidelines. TEI is widely used in textual analysis in the humanities and other social sciences. I first observed it in use in a presentation in the workshop organised and facilitated by Dr Ayesha Mukherjee (Exeter University), *Famine and Dearth in India and Britain, 1550-1800*. In this initiative TEI is being used to trace the narrative of famine running through English and Indian literature between 1500 and 1800, using the power of technology to handle large volumes of text. The advantage of using TEI is that it is standardized, which allows the group to add researchers versed in the same encoding language and ontology of terms and classifications. Should this group decide to add a new term to facilitate analysis of their theme they can do so. However, the addition of a new term cannot be done lightly. An addition means that text already encoded must be reviewed and the new mark-up incorporated where relevant by the entire team of researchers, for consistency. As may be imagined, the body of text this group is working on is substantial.

The implementation of TEI is quite labour-intensive and projects such as *Famine and Dearth* require a long-term commitment. Through Warwick University, a software package called NVIVO is available to researchers engaged in qualitative projects.⁵²⁸ It works on similar principles but does not require a knowledge of encoding conventions and language. In one sense, it is much easier to use: it involves uploading a file of the text to be analysed, and then (within the NVIVO software) marking sections of text electronically, by selecting them with the cursor, for tagging. However, in the version I tested, once text was marked it was difficult to return to it to edit or verify it. I therefore decided to apply a hybrid approach, borrowing from the ideas applied by Sauter and Tulloch, and extending the idea of word-counts with an important feature of encoding languages. Specifically, this is the ability of textual encoding approaches typical of TEI and NVIVO to handle text in which many ideas are nested or overlapping in relatively short sentences, as they are in critical reviews. I took this decision for two reasons. The primary reason was

⁵²⁸< www.qsrinternational.com/what-is-nvivo>.

that I thought it important to be close to the raw data (the text); I was unwilling to work with a black box. The second was the constraint of time and resources. Using TEI might have doubled the time required to execute the project. I note, however, that the risk of not following the beaten path is the loss of collaborators embedded in the systems of TEI and NVIVO. I also note the further risk of working alone, which is the potential for bias in my reading of the reviews, so that my result might potentially reflect an unrepresentative interpretation of the reviews. This project is therefore described in Chapter Seven as a pilot study because, in an ideal world, it would be executed by a team of researchers, several of whom would work through the same process to verify the stability of the ontology in the context of creative text, making iterative adjustments along the way in the spirit of the circular thinking driving this work, but also in the interest of accuracy and consistency.

Having recognised the possible caveats, I now provide a brief explanation with examples of the process at work. In terms of the Chapter Seven ontology, a typical review paragraph might be described (for example) as a positioning statement.⁵²⁹ As part of the review content, such positioning statements might be delivered in different ways, affirming the quality of the production or objecting to it.⁵³⁰ The positioning statement might be supported with other content: such as descriptions of aspects of the production such as the calibre of the acting and directing, the quality of design and set, or the texture and delivery of the play's language. Such supporting context can be delivered in a different way to the headline message of overall paragraph. Hence for example the critic might position the production in negative terms, while affirming the excellence of the lead actor in a key role, as several critics did in their reviews of *The Skriker* in 1994.

In practical terms, I applied a system of different brackets, as TEI does, to mark the beginning and ending of sections of text. (I further marked each type of bracket with a different colour for ease of reading but not to assign meaning. Some textual encoding systems use fonts and colours as tags, as Warwick's Digital

⁵²⁹ Recapping, the possibilities are: the production overall; its positioning; the writing; the plot; the lead actor; the supporting actors; the ensemble of dancers; meaning; ecological meaning.

⁵³⁰ The possibilities in this analysis are affirmation, empathy or objection; and sensory, artistic, or objective (factual) response levels.

Humanities Academic Technologies team explained when I consulted them about TEI and NVIVO.)

The third paragraph of Clapp’s review is shown below to demonstrate the marking system in practice. Sections of text tagged in bold refer to ‘what’ is being discussed. The tags that follow them refer to ‘how’ the critic is discussing that topic. Wordcount for each section is shown in this manner: <nn>.⁵³¹

Figure A7.01: Example of Textual Mark-up, Clapp 2015

MEANING <92> << **PLOT**<46>{{ **FACTUAL**<6> [[Churchill's play is almost entirely female]]. The voice of its **LEAD ACTOR**; **EMPATHY**; **AFFIRMATION** <4> [[ancient Cassandra⁵³² is dominant]]. **SUPPORTING ACTORS** <25> {{{ Its **SENSORY** <2> [[most sympathetic]] characters are **FACTUAL**<3> [[two young women]], **ARTISTIC**; **AFFIRMATION** <8>[[strongly rendered by Laura Elsworthy and Jumah Sharkah.]] **LEV-FACT** <9> [[One has killed her baby; the other is pregnant.]]]}} **LEAD ACTOR**; **SENSORY**; **EMPATHY** <7> [[The Skriker haunts them, tormenting and enticing]].]] **PRODUCTION OVERALL** <48>; {{{ **FACTUAL** <6> [[The few males in Sarah Frankcom's]] **AFFIRMATION**; **SENSORY**<2>[[explosive production]] are part of a **ENVIRONMENTAL MEANING** **EMPATHY**; **SENSORY**; <32>{{ [disordered landscape in which **MOVEMENT** <9> {{{ **EMPATHY** <3> [[animation means mutation]]: one who **EMPATHY**; **SENSORY** <4>[[writhes in ecstatic dance]]]} **DESIGN** <21> **EMPATHY**; **ARTISTIC**[[may be partly a horse; another has a giant ear sprouting from the top of his head like a satellite dish]]]}} >>

Source: Theatre Record

Interpreting aspects of the markup for further clarification, this ninety-two-word paragraph discusses the meaning of the production overall with reference to the plot, the lead actor, the supporting actors, the production overall, environmental meanings, movement and design. Within the lead topic, a substantial portion of the paragraph is about the plot. Within the forty-six-word section marked as ‘plot’, reference is made to the lead actor and supporting actors. The forty-eight-word section about the production overall refers to environmental meanings, movement and design. Thus, seven different topics are nested within the main topic, with further nesting in some instances, in a relatively complex structure.

⁵³¹ The 1994 body of reviews amounted to forty-seven paragraphs within which one hundred and six sub-sections of text on supporting topics were identified. The 2015 reviews amounted to thirty-eight paragraphs encompassing and one hundred and eleven supporting sub-topics.

⁵³² Cassandra – a rich intertextual reference denoting warnings ignored, and at the same time conveying the power of Peake’s performance.

The paragraph opens on a factual note but quickly moves to a strong statement, affirming (and empathising with) the powerful performance of Peake. Reflecting the collaborative spirit of the production, Clapp spends a significant number of words within the paragraph on the strong performance of the two supporting actors, in terms that suggests she responded emotionally to them. These words are the springboard for the next few words on the lead actor, marked here for their sensory content and Clapp's empathy with the character (and actor) – the Skriker haunts, torments and pursues her prey. When commenting on the production overall, Clapp begins factually once again, but rapidly moves to a strong statement of affirmation, indicating that she responded emotionally ('writhes', 'ecstatic') and cognitively (describing details in the artistry of the design) to the production. For Clapp, a small ecosystem of feedback loops in the production overall seems to be what most effectively communicated ecological meanings.

The nested quality of review text brings with it a measurement challenge, which is what counting convention should be followed to reflect the content and quality of the review text without distortion. In the encoding approach described above, two rules are applied to capture peak theatrical experiences within reasonable limits. The first rule is that individual pieces of text can be marked in several ways (e.g. sensory, artistic, affirmation), which means that if encoded words are counted for any given review, they can potentially exceed the word-count in the review. The second rule is that the 'how' tags in the ontology can only be repeated within a section similarly tagged if associated with a new sub-topic (in bold). Together, these two rules allow excitement in the critic's response to be reflected in the numbers, in such a way as to capture theatrical warming at work. An example of such magnification is found in the final sentence in the above extract, which is marked as reflecting empathy, as well as being an artistic-level response. For this twenty-one-word sentence, forty-one words of text are encoded.⁵³³ The percentages for the extract of Clapp's review are shown in Table A7.03.

⁵³³ As an example, consider a thirty-word sentence about the production overall tagged 'empathy' in its entirety, containing a ten-word phrase on a different topic (such as the lead actor) in which five words are tagged as 'empathy' with reference to the actor. The empathy word-count for this thirty-word sentence would be thirty-five. The thinking is that the critic responded to the production, and their reaction was further magnified by the acting performance which was singled out in this comment. Within a section of text on a single topic tagged 'empathy', no further words are tagged in

Table A7.03: A Short Extract from Clapp's *The Skriker Review in Numbers* – Paragraph Three

		How:					
	What	Sens-Ory	Art-istic	Fact-Ual	Emp-athy	Affirm-Ation	Object-ion
Meaning	100%	51%	32%	26%	74%	15%	0%
Plot /Storyline	50%	2%	9%	20%	4%	4%	0%
Lead Actor	12%	8%	0%	0%	12%	4%	0%
Supporting actors	27%	2%	9%	13%	0%	9%	0%
Production	52%	41%	23%	7%	62%	2%	0%
Ecomeaning	35%	39%	23%	0%	58%	0%	0%
Movement	10%	4%	0%	0%	8%	0%	0%
Design	23%	0%	23%	0%	23%	0%	0%

Source: Data Compiled from Theatre Record

I acknowledge that textual overlaps have the potential to overstate the presence of peak theatrical experiences. However, I note that the same rules are applied to both years, and I do not consider absolute totals of words encoded in my analysis. The visual comparison in the Chapter Seven charts presents percentages of total word-count in each year (see Table 7.02) for each of the terms represented by the points on the charts.⁵³⁴

the same way because this would be double-counting, rather than magnification by a critic choosing to connect several points in a few words.

⁵³⁴ I considered the idea of using the ratio of words encoded to the word-count of the text as a measure of critical engagement in the text, or textual richness. I rejected the idea because it would need to be assessed for potential meaningfulness as well as robustness to different conditions. Such an exercise would go beyond the scope of this thesis. This is perhaps an idea for future exploration.

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⁵³⁶ For a full list of reviewers for both years, see Appendix to Chapter Seven.

List of Abbreviations

ACE – Arts Council England

ASLE – Association for the Study of Literature and the Environment

COP – Conference of the Parties (to the UNFCCC)

COP21 – Conference of the Parties held in 2015.

CRED – Centre for Research on the Epidemiology of Disasters

EOD – Earth Overshoot Day

GHG – Greenhouse Gases

HYDE – History Database of the Global Environment

IATL – Institute for Advanced Teaching and Learning, Warwick University

IFTR – International Federation of Theatre Research

IPCC – Intergovernmental Panel on Climate Change

NT – National Theatre

OFCE – Observatoire de Conjonctures Economiques

SBT – Shakespeare Birthplace Trust (Library and Archive)

TEI – Text Encoding Initiative

TORCH – The Oxford Research Centre for the Humanities

UNFCCC – United Nations Framework Convention on Climate Change

WLA – Western Literature Association